A STUDY OF LOCUS OF CONTROL, ADJUSTMENT AND SELF-CONFIDENCE AS RELATED TO THE PERFORMANCE OF HOCKEY PLAYERS

THESIS

SUBMITTED FOR THE AWARD OF THE DEGREE OF

Doctor of Philosophy

IN

PHYSICAL EDUCATION

By

SAYED KHURRAM NISAR

Under the Supervision of

PROF. JAOWAD ALI

DEPARTMENT OF PHYSICAL HEALTH AND
SPORTS EDUCATION
ALIGARH MUSLIM UNIVERSITY
ALIGARH (INDIA)

2008

Dedicated to
My
Parents

DEPARTMENT OF PHYSICAL HEALTH & SPORTS EDUCATION
Aligarh Muslim University
Aligarh- 202 002 (India)

Prof. Jaowad Ali
Chairman

Phones: Internal : 3070
Residence : 2705411
STD Code : 0571

Certificate

This is to certify that the thesis entitled **" A Study of Locus of Control, Adjustment and Self-confidence as related to the performance of Hockey Players"** embodies the empirical investigation carried out by **Mr. Sayed Khurram Nisar** for the degree of Doctor of Philosophy in Physical Education under my supervision. The thesis is an original contribution and adds substantially to the existing treasure of knowledge in the discipline of Physical Education. The thesis is fit for submission to the examiners for evaluation.

(Prof. Jaowad Ali)
Supervisor

Acknowledgements

This thesis arose in part out of years of research that has been done since I joined the research in the department of physical health & sports education (A.M.U.). By that time, I have worked with a great number of people whose contribution in assorted ways to the research and the making of the thesis deserved special mention. It is a pleasure to convey my gratitude to them all in my humble acknowledgment.

In the first place I would like to record my gratitude to Professor Jaowad Ali, Chairman, Department of Physical health & Sports Education A.M.U., Aligarh for his supervision, advice, and guidance from the very early stage of this research as well as giving me extraordinary experiences throughout the work. Above all and the most needed, he provided me unflinching encouragement and support in various ways. His truly scientist intuition has made him as a constant oasis of ideas, which exceptionally inspired and enriched my growth as a student, a researcher and as a social scientist. The present work has culminated due to his meticulous guidance, constant inspiration and most of all his enthusiasm for perfection and completion of this work. I am indebted to him more than he knows.

Many thanks go in particular to the members of Organizing Committee members of North Zone Intervarsity Hockey tournament, Aligarh Muslim University, Managers, Coaches and players of various University teams who extended their valuable help and co-operation during the course of data collection.

I like to present my special thanks to all my respected teachers of the department for their valuable guidance and encouragement for this academic pursuit.

My special thanks to Mr. Anwar Ahmad, Mr. Ashok Kumar and non-teaching staff of the department for their help and co-operation.

I also grasp this opportunity to express my deep hearted thanks to my friend Md. Ahsan and all other friends who generously helped me throughout the work as and when required.

Words are inadequate to express my gratitude to Prof. Akbar Hussain, Department of Psychology. I also owe my thanks to Dr. Haseeb Akhtar, Lecturer Department of Statistics & Operational Research, A.M.U., for his valuable suggestions and help in terms of statistical treatment of data.

My sincere tribute also to Mr. Malik Hayat Hashmi, Computer Centre, (A.M.U.).

I would also like to sincerely acknowledge to Mr. Jaseem Baig who made it possible to bring out the presentable printout of the thesis.

With extreme care of my heart I most faithfully acknowledge the love, affection and blessings that I have received from my parents, uncle S. Ahmad, brother and sisters and all those without whose contribution this empirical work would have not seen the light of the day.

S. Khurram Nisar

(Sayed Khurram Nisar)

CONTENTS

List of Tables and Contents

Chapter-1
Introduction

INTRODUCTION

The cognitive processes touch to the level of threshold where the field of sport is not considered as leisure activity; rather, it reflects simultaneous, multidimensional growth to cater the varied emerging needs & demands of the post-modern world.

To express its relevance for contemporary social and ideological shift, sport defragmented itself into different individualized domain (allied areas) such as Sport Psychology, Sport Sociology, Sport Economics, Sport Management, Sport Physiology, Sport Pedagogy, Sport Humanities etc, that works in fully individualize/specialized way according to the nature of the field concerned and inspire to contribute to the parental domain i.e. sport.

In a broader sense, sport shows bi-lingual growth in contemporary world matrix. At one side, it is about to surface as a big corporate business in third world countries imbibe with highly skilled & professional attitude that reflects worth contribution of Sport Management, Sports Economics, Sports Law, Sports Journalism, Sports Media, Sports Politics, Sports Tourism, Sports goods manufacturing

etc. whereas at the other side it successfully recognizes and established itself as complete academic discipline and pedagogical process that attracts all the innovative academician from varied disciplines all over the globe.

The above mentioned dimensions revolve around the central axis (i.e., Sports) epistemologically, to acquire knowledge and set its validity for sport society in specific & society in general. The term sport comes in to existence from the philosophical evolution of Play to Game (Guttmann, 1978, Loy, 1978). Because of innate human psycho-personal need and basic social right, sport is a process that has been recognized by competition, performance and instution-alization of rules & regulation. Then who competes, whose performance is required, and upon whom the rules are administered; definitely they will be the sport persons. Further, the worth of rules instutionalization brings fair competition in sports and make sports person disciplined whereas competition is necessarily a tool to evaluate the level of psycho-physical, social and techno- tactical standards of an athlete, a group or a team as a whole.

The performance of sport persons depends broadly upon two major dimensions and their sub divisions i.e. physical and psychological. Physical dimension comes under the concern of 'Sports Physiology, Sport Training,, Sports Nutrition , Dietetics, Motor learning , Bio-Mechanics etc. Where as psychological dimension is fully a matter of value and thought to sports "psychology" (academic & clinical) it-self. In a recent study of successful and less successful athletes at the 1996 Olympics, Gould and associates (1998) reached the conclusion that achieving the peak performance at the Olympics requires the complex interplay of many factors, and one of these factors is mental preparation. With the development of sport psychology, it has been established that socio-psychological factors such as personality characteristics, attitudes, interest, motivation and lots of other psychological factors influence performance of players (Kane, 1968; Ogilivie, 1968; Singer, 1972).

Laders (1983) has argued that research in sport psychology can be divided into three stages. The **first** stage, (1950-personality research) was dominated by research on how the personality profile of Athletes related to

performance. The **second** stage (1966 to 1976) was dominated by the borrowing of then current theories from mainstream psychology, to test them in the sport setting, by the development of interactional approaches and by the formulation of operant-conditioning models for sport. **Third** Stage (1976 and further; Cognitive Approaches, Fields Methods and Sport Specific Theory and advances) have focused more on developing information and theories directly derived from sport and on developing and refining psychological skills and strategies to enhance sport performance.

Sport and exercise scientists have amassed an impressive body of knowledge about the applied psychological aspects of sport and exercise (e.g., Williams, 2001). The psychological preparation of athlete is an important aspect of the total preparation of the athlete for better performance. This aspect of sports training to a greater or lesser extent has been discussed by the experts namely, Harre (1986), Martin (1979) and Matwejew (1981).

Alderman (1974) while emphasizing the psychological factors comments "one essential point which must be

stressed is that regardless of how much ability, skill or fitness level a person possesses for a particular task of sport, the success or the quality of his performance will in the final analysis probably depend on his particular psychological make-up".

Psychological Preparation of athletes for the main competition is a very important part of the total preparation of the sportsmen. Psychological preparation aims at enabling the sportsmen to participate in the competition with an optimum psychic state (Hardyal, 1993).

In recent years researchers have become increasingly interested to know whether the personality characteristics are related to the athletic performance. An analysis of determinants of athletic performance and discussions with participants in a number of sports from recreational to national competitions, suggest that locus of control, adjustment & self confidence are important factors in athletic performance.

So the studies provide clear evidence that during the last phase of preparation, psychological preparation supersedes physical preparation, and that reflects its

importance and determines the final performance. It can also be argued in a way that at international or national level all participants possess nearly same level of physical performance determinants (strength, flexibility, speed, coordination, blood pressure, bone density etc.) irrespective to their event or sports but the thing that varies dramatically and responsible for their final outcome is their ability to maintain equilibrium on their psychological attributes such as aggression, stress, emotion, self-confidence, adjustment, motivation, at optimal level throughout the competition.

It is interesting to note that Weiss and Gill (2005) jotted down 75 years worth of studies, narratives, and commentaries, published in Research Quarterly for Exercise and Sport (RQES). They claimed that "re-emerging themes and trends" materialized in clear and coherent ways. "Hot" topics of the 1930s can be traced through the years and remain "hot" in 2004-such as moral development/ sportsmanship, social development, self-perceptions (self-confidence, self-esteem etc.), attitude/motivation, modeling/observational learning, emotional arousal /

anxiety, competition/achievement orientations, and gender roles.

Weiss and Gill's (2005) work provides additional support to the present investigation in terms of its validitation to current trends of study in sport psychology. Their work also signifies that the variables selected for the present study are among the favorable choices of the sport psychologists from 1930s. As the study inclined to investigate the selected psychological variables in terms of performance of hockey players, it seems mandatory to brief about the selected variables assigned to the study, chronologically.

Locus of Control

Personality has been the most popular area of concern for the practitioners of sport psychology from decades. There are several approaches that have been suggested from time to time for its better understanding, among them trait theory established its greater validity as it revealed the role of genetic and environmental interplay in shaping individual behavior. In relation to this ideology two schools of thought emerged. The Multi trait theorists, who aim to identify range

of traits that are central to personality and thus give an indication of a person as a whole; while single trait theorists are focusing on merely one aspect of the total personality and attempting to explain how that specific personality trait influences behavior. These include theories such as Rotter's (1966) Locus of Control and Mc Clelland's (1961), Need for Achievement.

In the legacy of single trait theorists, the best theoretical statement introducing the expectancy of control construct was given by Rotter (1966) in his review of researches on Locus of Control. "A reinforcement, according to him, acts to strengthen expectancy that a particular behavior or event will be followed by the reinforcement in the future". Once expectancy for such a behavior-reinforcement sequence is built-up the failure of the reinforcement to occur will reduce or extinguish the expectancy. It follows as a general hypothesis that when the reinforcement is seen as non-contingent upon the subject's own behavior that its occurrence will not increase an expectancy as much when it is seen as contingent conversely, its non-occurrence will not reduce any expectancy so much as

when it is seen as contingent. It seems likely that, depending upon the individual's history of reinforcement, individuals would differ in the degree to which they attributed reinforcements to their own actions (Khurshid, 1998).

Thus Rotter labeled the construct as 'Locus of Control of Reinforcement', bridging behavioural and cognitive psychology. Rotter's view was that the behaviour was largely guided by "Reinforcements" (rewards and punishments) and that through contingencies such as rewards and punishments, individuals come to hold beliefs about what causes their actions. These beliefs, in turn, guide what kinds of attitudes and behaviours people adopt.

Generally people are distributed along an internal and external continuum. People along the external end of the continuum feel that their abilities, skills, personal efforts, competence and similar variables control their destiny. In other words, the internal people feel that the outcome of events is generally under the control of the person. Contrasted with the internals, those people who characteristically feel that whatever happens to them is controlled by chance, other people, and luck, are termed

externals. These people tend to feel that events in the environment are beyond the control of the individual (Bois, Alverson and Stanly, 1979).

Whereas Rotter (1966) noted that people differ in the extent to which they attribute personal outcomes to themselves or to external sources. Individuals who believe that events in their life are under their own control and that what happens to them is a function of their own decisions and behaviors are called internals. As such they believe in internal locus of control. On the other hand persons who believe in external locus of control- consider external attributes responsible for the happenings i.e. luck, fate contribution of others etc.

In other way some people believe that obtaining reward and avoiding punishment is primarily within their control and depends on their own behavior (Internals). Others expect their good and bad experiences to be caused largely by the actions of other people (Externals). If an individual is primarily internal, he is likely to agree with such statements as "People's misfortunes are due to their own mistakes", "When I make planes, I am almost certain to make them

work" and "There is a direct connection between how hard I study and grades I receive". If instead individual is primarily external, he is likely to endorse such statements as "Many of the good and bad things in life are due to luck".

Since the advent of Rotter's (1966) Social Learning Theory, Locus of control has been a successful concept for research. Most of the studies have been conducted with college student's samples while somewhat fever studies have used samples of children, the elderly and clinical groups (Lefcourt, 1976). Recent reviews on the locus of control (Lefcourt, 1981-1982) have advocated the use of specific area to which locus of control has been used as measures for obtaining higher magnitudes of behavior predictions.

Locus of control is a personality construct; Rotter holds that the effect of reinforcement on behavior partially depends on whether individuals habitually perceive events as contingent on their behavior or independent of it. The Internal-External locus of control scale was developed for social psychology research to measure the degree to which individuals feel they can control their environments. At one end of the personality dimension are internal locus of control

subjects, who perceive rewards as being contingent on their own behaviors. They have a high degree of perceived personal control. At the opposite are external locus of control subjects, who perceive rewards as independent of their behavior- that is, due to chance. This locus of control construct has been found to differentiate significantly between subjects on a variety of performance tasks (Rotter, 1966).

Some individuals develop unshakable belief that valued reinforcements occur only by chance, and that men are not the master of their fate. In contrast others may strongly believe that a human being gets his due desserts, that man is responsible for his fate. The fatalists perceive on contingency between action and outcomes while those espousing internal control beliefs readily perceive such contingencies. Internals have been found to be more perceptive to and ready to learn about their surroundings. They are more inquisitive, curious, and efficient processors of information than the externals (Rafat, 1992).

Bernard Wainers (1977) contended that locus of control refers to a bias across a wide area of situations that

influences the perception of control over the environment and the perceived causes of reward.

Lefcourt (1982) opined that locus of control is not a typological concept. It is not the case that people are either internally or externally controlled locus of control is a continuum and people can be ordered along that continuum. Locus of control is a personality construct that has been shown to have a great deal of relevance to competence and coping skills in many important areas of human functioning.

In the world of sports there are several factors that have significant effect on the performance of sportsmen. If we leave all the other psychological factors, common observation is that, there are two major dimensions of locus of control i.e. internal and external that exercise significant impact in the arena of sports competition. Internal factors may include, ability, superiority in skill, practice, suitable body build etc, while the external factors indicate chance, luck, influence of the high-ups, financial backing, officials role and judgment etc. Success or failures in sports, to a great degree, are definitely dependent on these factors. The political climate exerts tremendous influence upon the direction and the

quality of sports participation. Many superior athletes fail to achieve the desired goal, not withstanding their practice and preparation for the event, but for them luck does not favor. For many promising athletes, sometimes gates are shut at the time of entry or start. When the athletes take refuge in the Lady-luck under whose capricious eye all are equal or they earn the patronage of politicians their belief in superior skill or ability and dedication towards a goal and concentration during participation is shaken. Therefore it looks worthwhile to locate the factors which influences sports career of sports-person so that they are adequately advised and sports strategies could be developed for retaining a place of honour at the international arena. (Kamlesh & Sharma, 1986).

Good athletes tend to have been found more internally controlled because they have learned that their abilities and efforts bring them reward and success. Whether players are externally controlled or internally controlled may influence their performance. External controls tend to fear failure and are often chance- oriented (Michael, 1994).

Belief in internal control may be expected with increasing age, Penk (1969), and Crandall (1965), support the

view that as the child develops, he becomes a more effective human being and thus increasing events in the life of the individual that lead to a fear of less control might easily result in changes in an external direction.

Rotter's social learning theory has been modified recently in order to encompass researches (Reid & Ware, 1973; 1974, Rotter, 1975) demonstrating the multi-dimensionality of the internal-external construct as well as to explain the relevance of this construct to understand psychological adjustment. Psychological adjustment is defined as any alteration of functioning an individual makes so as to become both better fitted and more content within his or her environment (Reid & Ziegler, 1981).

In simplistic terms, a more internal locus of control is generally seen as desirable. Having an Internal locus of control can also be referred to as "self-agency", "personal control", "self-determination", etc. Research has found the following trends: Males tend to be more internal than females, as people get older they tend to become more internal and people higher up in organisational structures tend to be more internal (Mamlin, Harris & Case, 2001).

Despite these cautions, psychological research has found that people with a more internal locus of control seem to be better off, e.g., they tend to be more achievement oriented and to get better paid jobs.

Sometimes Locus of Control is seen as a stable, underlying personality construct, but this may be misleading, since the theory and research indicates that that locus of control is largely learned. There is evidence that, at least to some extent, LOC is a response to circumstances. Some psychological and educational interventions have been found to produce shifts towards internal locus of control (e.g., outdoor education programs; Hans, 2000; Hattie, Marsh, Neill & Richards, 1997).

Despite the bulk of research exists on Locus of Control; few studies have been conducted to examine how L.C. beliefs interact with other personality variables such as Self-Confidence and Adjustment among the sportsmen. However, the biological and psychological changes accompanying sports activities strongly affect the every day states of Self-Confidence and Adjustment of sports personal. In general, sports persons who are assessed as being internal on L.C.

scales appear to be better adjusted and more satisfied with life than sports persons who are assessed as being externals. Thus an important consideration that attracts the cognition of the present investigator to undertake the present research is to explore substantial body of evidence which suggest that locus of control a personality variable, is a potent determiner of cognitive processes (such as attention, perception, conceptualization, categorization, learning, memory) adjustment and sports performance.

Adjustment

Frost (1970) warned that social and cultural forces are operating constantly and a meticulous understanding of these is absolutely necessary in any attempt to unrevealing the factors causing revering behavior and its change in settings. An individual is adjusted if he is adjusted to himself and to his environment (Arkoff, 1968). Thus, adjustment as an achievement means how the effectiveness with which an individual can function in changed circumstances and is, as such, related to his adequacy and regarded as an achievement that is accomplished either badly or well (Lazarus, 1976).

The term 'adjustment' has been defined in various ways. Psychologists, biologists, educationist, sociologist and other behavioral scientists have described the term in their own unique ways of interpretation. The dictionary meaning of 'Adjustment' is to fit, to make correspondence, to adopt or to accommodate. Robert (1956) has considered the concept of adjustment as an interaction between the person and his environment, each asserting demand on the other. In most cases, adjustment is a compromise between the two. Environment includes everything external to the person to which he is exposed and the internals he composed of. The behavior of an individual in a situation depends upon his personal characteristics as well as the situation. Adjustment is dynamic rather than static in quality. A person changes with the change in his environment. It is believed to be a continuous process by which a person varies his behavior to produce a more harmonious relationship between himself and his environment. The direction of his efforts may be towards modifying his own behavior and attitude or towards changing the environment or both. In other sense adjustment is a state i.e. the condition of harmony arrived at by a person

whom we call "well adjusted". It has been observed that an adjusted person is relatively efficient and happy.

'Adjustment' came into popular use in psychology during the 1930's and was given strong endorsement by Shaffer (1956). He emphasized the biological adaptation of the organism to its environment. This is a somewhat mechanistic approach to human behavior on the lines of behaviorists (Watson and Dashiel, 1930). The term adjustment as used by Shaffer (1956) was subjected to considerable criticism particularly with reference to its emphasis upon the mechanical adaptation of human being to the demands of the environment. It was argued that man not only adapts to his environment, but through the use of his intelligence and imagination, changes his environment to meet his needs more effectively (Freud, 1933; Adler, 1930; Horney 1937; Erikson, 1963; Fromm, 1941; Bandura, 1971; Mischel, 1968; Rotter, 1954; Maslow, 1968; Allport, 1937; Frankle, 1969).

Arkoff (1968) opines that adjustment is a person's interaction with environment. Each person constantly strives to meet his needs, and reaches his goals. At the same time he

is under pressure from the environment to behave in a certain way. Adjustment involves the interaction of personal and environmental demands. It is emphasized that adjustment is a process by which the individual tries his best to maintain a harmonious, stable and satisfying relationship with his environment, (Hussain, 1985). In fact adjustment has been regarded as a process rather than achievement or a condition (Symonds, 1946; Madigan, 1962; Coleman, 1960; Schnieder, 1965; Kaplan, 1965; Glanz and Welston 1958; Lazarus, 1961; Gordan, 1963).

Cronbach (1960) described adjustment as a means to the end of accomplishment. The adjusted person is one who commits himself to socially desirable goals and makes use of his energies efficiently towards their accomplishment. Thus, adjustment as an achievement means how the effectiveness with which an individual can function in changed circumstances and is, as such related to his adequacy and regarded as an achievement that is accomplished either badly or well (Lazarus, 1976).

Psychologically, adjustment implies a constant interaction between the person and his environment, each

making demands on the other. Sometime adjustment is accomplished when the person yields, at other time it is achieved when environment yields to person's constructive activities. In most cases adjustment is a compromise between these two extremes and maladjustment is a failure to achieve a satisfactory compromise (White, 1956).

Adjustment is commonly defined in terms of freedom from tensions and conflicts and adapting oneself to the needs of other individuals. According to Bordin (1943) adjustment is a process by which a living organism maintains a balance between its needs and circumstances that influence the satisfaction of these needs. Adjustment is therefore, state of harmony between the needs, activities resources of a person and the conditions of the milieu. The factors that determine one's adjustment are numerous and complex, and routed in the personality development (Scarr and Kidd, 1983; Slater and Cowie, 1971; Sullivan, 1947; Sinha and Singh, 1980).

In the light of the above discussions it may be deduced that every living being is required to adjust to lead a satisfactory and happy life. Throughout his life span human beings are exposed to problems which must be solved

otherwise a person is afflicted by mental stress, anxiety and such other agonies. During the childhood a child is required to imbibe language, morality, values, manners and etiquettes. During adolescence he is required to adjust to the rapid and radical biological changes. This is a time when he also faces the problems of choice of courses and career. During adulthood he has to select a job and make a proper adjustment to be successful in life. This is the period when he has to start his material life. In brief adjustment is crucial for various walks of life. Thus it is quite obvious that adjustment is also very significant for sports performance. Because one has to learn skills, maintain and maximize the acquired skills during sporting events. In individual games one has to assess his opponent and modify his techniques and strategies. In team games (such as, hockey) especially one has to adjust himself with his team mates; has to apply learned skills, strategies, techniques collectively and should know that how to adjust during competition stress.

The relationship between adjustment and sports performance has not been extensively as well as intensively investigated to desired extent. Though psychologists have

highlighted the importance of adjustment to various psychological and social factors (Palsane, 1970; Boykin, 1957; Landau, 1957; John and others, 1959; Deutsch, 1960; Brar, 1973; Ghorpade, 1978; Rangari, 1984; Saraswat and others, 1984; Rao, 1972; Sharma and others, 1974; Bhatt, 1961; Resnick, 1951; Chadha and Chandra, 1985). Mann (1988) and Sharma (1984) have found successful athletes to be better adjusted as compared to unsuccessful and non-sports persons.

Peak performance is not about being perfect, it is about learning to compensate and adjust. In performance, the athletes do not have control of what happens to them, but they have control of how they choose to respond. Athletes have to take responsibility for those things they can control; their attitude, effort, and most importantly themselves. When the athletes assess the failure, and determine those factors they had control of and learn to make the necessary adjustment, they will enhance their opportunity for improvement (Ravizza, 2002).

It can, thus, easily be inferred that adjustment and performance, particularly in team sport, go hand-in-hand.

Social and emotional adjustments are considered to be the constant sources of inspiration to a player to adjust himself to the changing conditions that competitions presents and to regulate his emotions to contribute to team's success. A well adjusted individual can meet his needs with the resources available at his command to contribute to team's success. Studies reveal that well adjusted athletes can do best and maintain their emotional stability and health as compared to their unsuccessful and non-athlete counterparts (Scymonn,1956; Boscow1972; Cooper, 1969; Kane, 1968; Ogilivie, 1968; Buck, 1971; Sharma,1984; Maxiener, 1983; Morgan and Johnson, 1978).

It is reported that superior athletes showed higher levels of personal and social adjustment than those of less skilled athietes (Biddulph, 1954). There is hardly any empirical evidence of a negative correlation between adjustment and sports performance. Games and Sports constitute an ideal setting for the development of desirable personality characteristics such as confidence, sociability, cooperation, leadership and personal adjustment (Loye, 1968). It may be mentioned that games and sports are

organized in educational institutions and social settings to facilitate and regulate human actions and also to provide an opportunity to the audience for catharsis of their emotions. It is unfortunate but true that just a few studies have been conducted to determine the influence of adjustment on the performance of hockey players (Jaowad, 1996). The present investigation may bridge such gap.

Self-confidence

Confidence is generally considered one of the most important mental skills for elite athletes to have (Hardy, Jones, & Gould, 1996) Educators have long believed that participation in physical activity and sport is linked to positive change in self-perceptions, such as self-concept, self-esteem, body image, and self-confidence. Analysis of the articles published in the Research Quarterly and Exercise Sciences (RQES) revealed that the study of the relationship between physical activity and development of "the self" has traversed a road from global personality correlates of participation (58 studies from 1932-76, culminating in Morgan's, 1980, review), to descriptive accounts of self-concept and body image (16 studies from 1965-83), to theoretical orientations of self-perceptions as individual

difference variables, such as perceived competence, self-efficacy, expectancies of success, and physical self-concept (29 studies from 1980-2004), Weiss and Gill (2005).

Self- confidence has been defined as the belief that a person can successfully perform a desired behavior (Weinberg et al. 2003). Sport psychologists explain the above mentioned statement as; the desired behavior might be kicking a soccer goal, staying on exercise regimes, recovering from a knee injury, serving as ace, or hitting a home run. But the common factor is the believe, that the job should get done.

Research has shown that the factor that is most consistent in distinguishing highly successful form less successful athletes is confidence (Jones & Hardy, 1990). Basavanna (1975) termed in general; "self confidence refers to an individual's perceived ability to act effectively in a situation to overcome obstacles and to get things go all right". A self confident person perceives himself to be socially competent, emotionally matured, intellectually adequate, successful, satisfied, decisive, optimistic,

independent, self-reliant, self -assured, forward moving, fairly assertive and having leadership qualities.

Behavior is consistent with what we think we are qualified to do, deserve to do or capable of doing and are likely to do. As long as our expectancies remain high, we are likely to exert a concentrated effort and to persist in the face of adverse circumstances, (Keith F. Bell, 1983). Self-confidence is an important antecedent to performance. It tends to act as a self-fulfilling prophecy. If someone believes in his ability to perform well or in the probability that he will, he probably will fall short of his goal; where as if he think he can do well, he will more likely to come through. Furthermore, it is easier for confident athletes to stay focused on the task at hand, and they experience more positive emotions that often manifest themselves in playing to win, rather than to lose (Weingberg & Gould, 1999).

Confidence discriminates between successful and less successful gymnasts during Olympic trails (Mahoney & Avener, 1977) and big ten wrestlers (Gould, Weiss, & Weinberg, 1981). High self-confidence is one of those

psychological attributes associated with peak performance (Williams & Krane, 1998).

Athletes and coaches interview after competitions will inevitably reveal the critical role that self-confidence (or a lack of self-confidence) played in their mental success or failure. For example, Trevor Hoffman, one of the top "closers" pitching in the major leagues, has stated, "Confidence is every thing ; if you start second guessing yourself, you are bound to run into more bad outings." Research, too indicates that the factor most consistently distinguishing highly successful from less successful athletes is confidence (Jones & Hard, 1990; Vealey, 1999). In addition, Gould, Greenleaf, Lauer, and Chung (1999) found that confidence (efficacy) was among the chief factors influencing performance at the Nagano Olympic Games. Along these lines, in interviews with 63 of the highest achievers from a wide variety of sports, nearly 90% stated that they had a very high level of self-confidence. Meaning thereby is that top athletes, regardless of the sport, consistently display a strong belief in themselves and their abilities.

Even elite athletes sometimes have self-doubts, however, although they still seem to hold the belief that they can perform at high levels. Former elite middle-distance runner Steve Ovett stated "There's always a worry that I'd never live up to the expectations of my friends" (Hemery, 1986). Even basketball legend Michael Jordan speaks of gaining confidence through failure, as the following quote suggests:

"I've missed more than 9,000 shots in my career. I've lost almost 300 games. Twenty-six times I've been trusted to take the game winning shot and missed. I've failed over and over and over again in my life - and that is why I succeed".

In sports psychology, research in self-confidence has been conducted with various theoretical frameworks and has largely focused on mediating effect of confidence on cognition affect and behavior in sports and motor performance contexts (Bandura, 1977). How much effort someone expends and how long the individual will persist in pursuit of that goal depend largely on confidence (Weinberg, Yukelson, & Jack-son, 1980).

Although Vealey (1986) originally viewed self-confidence as both a disposition and a state, the latest thinking (Vealey 2001) sees sport self-confidence as a social cognitive construct that can be more trait-like or more state-like, depending on the temporal frame of reference used. For example, confidence could differ if we look at confidence about today's competition versus confidence about the upcoming season. In essence, confidence might be something you feel today and therefore be unstable (state-like), or it might be part of your personality and thus be very stable (trait-like). Another recent development is the view that confidence is affected by the specific organizational culture as well as the generally socio-cultural forces surrounding sport and exercise. For instance, an exerciser may get lots of positive feedback from the instructor, which helps to build his confidence, in contrast to no feedback (or even negative comment), which might undermine confidence. In sport, participation in certain activities is seen as more appropriate for males (e.g., wrestling) or females (e.g., figure skating), and this would certainly affect as athlete's feelings of confidence.

Sports psychologists have traditionally adopted three approaches in studying self-confidence in sports. Self-efficacy theory (a situation-specific form of self-confidence) has been used to predict behavior by measuring individual's efficacy expectation. Conceptual model of Perceived competence have also been adapted to sport in an attempt to predict achievement behavior in that context. Other researchers have used Performance expectancies (based on self- fulfilling prophecy which means that expecting something to happen actually help cause it to happen) to operationalzed self-confidence and attempt to predict behavior in sports.

From the above mentioned approaches of studying self-confidence, studies reveal that self-efficacy theory is being much favorable from late 90s (1997) among researchers, as psychologist Albert Bandura (1977a, 1986, 1997) brought together the concept of confidence and expectations to formulate a clear and useful conceptual model of self-efficacy defined as "the perception of one's ability to perform a task successfully". Self-confidence and self-efficacy have been used synonymously in sport psychology literature and have

been topics of much interest (Feltz, 1982,1988; Feltz & Lirgg, 1998; Gould & Weiss, 1981; Highlen & Bennett, 1979; Kenow & Williams, 1992; Malete, 1998; Vealey, 1986; Weinberg, Gould, & Jackson, 1979; Weinberg & Jackson 1990; Weiss, Barbar, Sisley, & Ebbeck; 1991).

A number of studies examined self-efficacy and psychological and behavioral correlates, including studies involving children (Chase, 2001), young adults (Fitzsimmons, Landers, Thomas, & van der Mars, 1991), and older adults (Gill, Kelley, Williams, & Martin, 1994). A meta analysis (Moritz, Feltz, Fahrbach, & Mack, 2000) provided a quantitative summary of the strength of self-efficacy effects on sport performance.These studies have generally found positive relationships between an individual's efficacy expectations and performance and have shown that mare successful performances exhibit higher efficacy expectations than less successful ones.

In fact, Bandura (1997) more recently has redefined self-efficacy/self-confidence to encompass those beliefs regarding individuals' capabilities to produce performances that will lead to anticipated outcomes. In this regard the term self-

regulatory efficacy is now employed (signifies third stage of development of the term), which focuses more on one's abilities to overcome obstacles or challenges to successful performance. Self-regulatory self-efficacy reflects respondents' perceptions of their efficacy for executing a skill or behavior in the face of barriers, difficulties, or particular conditions. For example, researchers have examined how efficacious exercisers are when exercising while tired of or lacking motivation (McAuley & Mihalko, 1998). Self regulatory self-efficacy is conceptually distinct from hierarchical self-efficacy/self-confidence. Assessing self-regulatory self- efficacy to manage difficult performance conditions is rare in the sport psychology literature despite the relevance of such cognitions to the challenges (e.g., anxiety of performance).

Recent narrative (Feltz & Lirgg, 2001) and meta-analytic (Moritz, Feltz, Fahrbach, & Mack, 2000) reviews conducted in the domain of sport have shown clear evidence for a significant relation-ship between self-efficacy/self-confidence and performance. The theory was originally developed within the framework of a social cognitive

approach to behavior change that viewed self-efficacy/self-confidence as a common cognitive mechanism for mediating motivation and behavior.

Many researchers (Feltz & lirgg, 1998;Gould &Weiss, 1981; Malete, 1998; Weinbery, Yukelson, & Jackson, 1980; Mc Auley & Blissmer, 2002) indicate that the individual's efficacy expectation have positive relationships with performance assumed that coaching confidence has an effect upon team performance and that team performance, in turn, influences coaching confidence.

Although the focus has been on efficacy as a determinant of exercise or sport behavior, there is also research indicating that exercise or sport behavior (both acute and chronic) can influence feelings of efficacy/confidence (Mc Auley & katula, 1998).

Mahoney and Avener (1977) conducted a study investigating the relationship between some selected variables and gymnastics performance with the 1976 US Olympics team. Results indicated that gymnasts who reported experiencing doubts their ability (i.e. low self efficacy) just prior to performance tended to perform poorly

during qualifying meet. One of the most consistent findings in sports psychology literature is the relationship between one's efficacy beliefs and performance. According to Chase et al; (1997) self efficacy may be defined as judgment about one's capability to successfully perform a task at given levels.

Bandura (1986) is of the opinion that self perception of efficacy would affect motivation and performance of an individual. Kingston and Hardy (1997) examined the relationship between goal-setting and self- efficacy (self-confidence) by using non-elite golfers and implementing two different goal-sitting interventions: performance goal-setting and process goal-sitting. Their findings indicated that the golfers who set process significantly improved performance and has less anxiety.

Research has supported the positive effects of self efficacy and goal setting on performance across organizational, academic and athletic settings (Bandura and jourdan, 1991; Early and Lituchy, 1991). Self -efficacy reflects a person's confidence to perform the action required to successfully accomplish a specific task (Bandura 1982). Those

who possess strong self efficacy beliefs seek to participate in challenging activities and respond with heightened effort and persistence in demanding situation (Bandura and Cervone, 1983).

Self-efficacy/self-confidence also indirectly influences performance through a positive effect on personal goal levels and performance strategies (wood et al., 1990). Kane (et.al., 1996) studied the self efficacy, personal goals and wrestlers' self regulation and reported that efficacy was predicted to be especially relevant for performance under extremely competitive conditions.

Feltz and Bandura (1989) suggested that both team and individual confidence should be developed and furthermore that role clarity, role acceptance, and performance are expected to be related to team confidence. The recent focus of research has been shifted on the concept of collective, or team, efficacy. Collective efficacy refers to a belief or perception shared by members of the team regarding the capabilities of their teammates (rather than merely the sum of individual perceptions of efficacy). Research (Lichacz &Partingtion, 1996; Lirgg & Feltz, 1994, 1998) demonstrated

that athlete's belief in the team's total (collective) efficacy was positively related to performance; the sum of the individuals' personal self-efficacy, however, was not related to team performance.

. However, self-efficacy predicts performance only when proper incentives and the necessary skills are present. If the incentives and skills are lacking, the individual's expectations alone will not produce the desired performance (Bandura, 1977, 1986).

Thus we can say that, self-confidence can be viewed as the most critical and popular psychological characteristic influencing sports performance. Fascination with the construct is fueled by the dramatic influences that the self-confidence has on performance, as well as the often stable and unpredictable nature of self-confidence over a period of time (Robin S. Vealey, 1986). Since self-confidence is the belief that one can successfully perform a desired behavior, it becomes clear that one's expectations (tool to measure self-efficacy/confidence) play a critical role in the behavior change process. Maganaris, Collins, and sharp (2000) recently reported that weight lifters who where told that they had

been given anabolic steroids (but who had actually been given a placebo, saccharine) increased their performance, whereas performance decreased when lifters were told the true nature of the substance administered. In summary, these studies demonstrate the critical role that self-expectations/confidence play in an athlete's performance.

Confident athletes believe in themselves. Most importantly, they believe in their ability to acquire the necessary skills and competencies, both physical and mental, to reach their potential. Less confident players doubt whether they are good enough or have what in takes to be successful. A work by Weinberg, Yukelson, & Jackson (1980), explain that how much effort someone expends and how long the individual will persist in pursuit of that goal depend largely on confidence. When ability is equal, the winner of competitions is usually the athletes who believe in themselves and their abilities (Maddux &Lewis, 1995).

Vealey & Knight (2002) have revealed that like many other current personality constructs, self-confidence may be multidimensional, consisting of several aspects. Specifically,

it appears that there are several types of self-confidence within sport, including the following:

- Confidence about one's ability to execute physical skills
- Confidence about one's ability to utilize psychological skills (e.g., imagery, self-talk)
- Confidence to employ perceptual skills (e.g. decision making, adaptability)
- Confidence in one's level of physical fitness and training status
- Confidence in one's learning potential or ability to improve one's skill

One recent concern regarding self-confidence has been the charge that females tend to demonstrate less confidence than males (Lirgg and Feltz, 1989, Stewart and Corbin, 1988). Maccoby and Jacklin (1974) asserted that females display less confidence than males in all achievement situations.

A lack of confidence decreases the likelihood that one will choose to do activities in a particular area also leads to a decreases in one's persistence and effort in the face of difficulties, thus limiting opportunities for improved performance (Bandura, 1986; Fennema and Peterson, 1985).

Lenney (1977) offered an alterative explanation for this apparent lack of female confidence in achievement. She suggested that females may display less confidence than males in only three situations when the task is male oriented, when the situation is competitive or comparative, and, when feedback is ambiguous.

In addition, Jones & Swain (1995) has revealed that athletes with high confidence interpret their anxiety levels more positively than those with less confidence. This provides a more productive belief system in which one can reframe emotions as facilitative to performance. We know from past research that there is a positive relationship between confidence and performance (Feltz, 1984b; Vealey, 2001); the factors affecting this relationship are less well known. However, such factors as organizational culture (e.g. high school versus collegiate expectations), personality characteristics (e.g., competitive orientation), demographic characteristics (e.g. gender, age), affect (e.g., arousal/anxiety) and cognitions (e.g., attributions for success or failure) have been suggested to be important. All these

factors have an impact on whether confidence is too low, too high, or just right.

Performance improves as the level of confidence increases-up to an optimal point, whereupon further increases in confidence produce corresponding decrements in performance.

Optimal self-confidence means beings so convinced that an individual can achieve his goals that he will strive hard to do so. It does not necessarily mean that he will always perform well, but it is essential to reaching his potential. A strong belief in oneself will help to deal with errors and mistakes effectively and keep one striving toward success. Each person has an optimal level of self-confidence, and performance problems can arise with either too little or too much confidence. Whereas self-doubts undermine performance: they create anxiety, break concentration, and cause indecisiveness. Individuals lacking confidence focus on their shortcomings rather than on their strengths, distracting themselves from concentrating on the task at hand. Conversely overconfident people are actually falsely confident; their confidence is greater than their abilities

warrant (Weinberg & Gould, 2003). In 1970s while explaining the loss in tennis match against his contender Billie Jean King , Bobby Riggs admitted that "It was mainly a case of overconfidence on my part, I overestimated myself. I underestimated Billie Jean's ability to meet the pressure (Tarshis, 1977, p.48).

Recent researches have revealed that the study of self-confidence has been embracing the third stage of development (i.e., in a precise way one can summarize that self-confidence previously succeed in to self-efficacy and finally to collective or team self- efficacy) focusing areas like performance, individual and team sport, gender issues, goal perception and degree of confidence. Further, there are nine sources of sport confidence. These include mastery, demonstration of ability, physical/mental preparation, physical self presentation, social support, vicarious experience, coach leadership, environmental comfort, and situation favorableness (Weinberg & Gould, 2003). Keeping in view the above mentioned researches and trends of studying self-confidence in the domain of sport psychology work in hand seems to establish greater validity as recent

studies and more classic studies (Mahoney & Avener, 1977), also showed that self-confidence is a critical factor in discriminating between successful and less successful performers (Gould, Guinan, Greenleaf, Medbery, &Peterson,1999; Jones, Hanton, & Swain,1994; Mahoney, Gabriel, & perkins, 1987).

Performance

Sports performance, like any other type of human performance, is a highly complex process and is a product of several internal and external factors encompassing all the aspects of human personality.

The sports scientists of earstwhile German Democratic Republic were the first to realize its importance and consequently they put in efforts to study it (Thorhauer, 1980-1981; Kunath, 1968; Schnabel, 1980, 1981 & 1986; Mahlo, 1986; Peters, 1986; Sieger, 1986; Lehnert, 1986; Budzich and Schwidtman 1988). The sports scientists are continuing their efforts in this regard. It is satisfying to note that their efforts are not limited to just one aspect of sports performance but extended to several aspects.

Theiss and Schnabel (1987) have given the following definition of sports performance: "Sport performance is the unity of execution and result of a sports action or a complex sequence of actions measured or evaluated according to socially determined and agreed norms". The definition underlines the process characteristic of sports performance. The actual performance is the psycho-socio-biological process of doing some actions of tackling some sports task. The result of this process is important for assessing the process of doing action or tackling the task.

Performance is considered to be a by-product of athletes total personality. It is the outcome of one's physical, physiological, techno-tactical and psycho-social integrity.

As it has been already established that psychological traits vary dramatically from practice session to competitive situation. Present study is delimited to North Zone inter-varsity competition so it has become obligatory that competition should be discussed thoroughly, in order to understand the reaction of selected variables in such a specific environment.

Competition

Norman Triplett (1898) undertook first experiment that addressed the effects of competition on performance. He observed that racers gave varying performances (as measured in time) when they raced alone, with a racer, or in competition with another racer. By consulting the records of the Racing Board of the league of American Wheelmen he found that cyclists were faster when racing against or with another cyclist than when racing alone against the clock. Thus, for the first time, face-to-face competition against fellow competitors was shown to potentially enhanced performance.

The term competition is popularly used to refer to a variety of different situations. For example, one compete against others, against oneself, against the clock or record book, and against objects and the elements (rock Climbing, white-water rafting). But it is noticeable that while defining competition, most researchers have focused on situations in which people compete against others in organized physical activities. For example, Coackley (1994) defines competition as "a social process that occurs when rewards are given to people on the basis of how their performances compare with

the performances of others being the same task or participating on the same event".

Martens (1975b) developed a specific model that gave a framework to further studies of competition in sport and exercise environments. His model takes into account the many social influences that impact competitive behaviors in sport. Furthermore, Marten's definition was similar to the one later developed by Coakley (1994) in both, competition is a process. Martens' definition also expresses competition as social evaluation. He argued that in order to maximize participants' personal development, it is critical to understand the social influences that help structure the activity environment. Thus Martens' social evaluation approach not only defines competition but also helps us to understand the competitive process in sport.

Hockey

Since the entire effort of the present investigation has been concentrated on the exploration of different psychological parameters in the uniquely structured domain of the game of hockey, and the relationship of selected variables with the performance of hockey players, it seems

obligatory that nature, anatomy and historical evolution of the game must be discussed globally as well as in Indian context, specifically.

In India it is regarded as the national game, it is a game of skills, deception, anticipation and concentration. Like all other games hockey too have its fundamental skills. To be on the top in any class it is necessary to have mastery over these fundamental skills. The fundamental skills in all games are based on the motor movements of human organism. Hockey has also proved to be as highly competitive sport around the world. From the last decades both men and women are taking part in the world level competitions. Bright, Jagat and Proundfood (1980) say that, "The game hockey is indeed said to be the oldest of all the games played with a ball and a stick. It has a thrill of a romantic journey traveling around the world".

The field hockey is one of the most ancient and popular game now played in all five continents; it is the fine and fast game played by two opposing teams consisting of twenty two players with eleven in each.

Kapur (1968) writes that no one knows hockey's birth day and birth place. Buried deep in Egypt's Nile valley lays the village of beni hasan, known for its ancient cliff tombs dating from 2000 B.C A drawing decorates one tomb, showing two men holding sticks with curved ends and standing over a ball.

One of the world's oldest known sport hockey predates the ancient games of Olympia by perhaps 1200 years or more. Indeed, historians believe it existed in many of the worlds early civilizations. The Arabs, Greeks, Romans, Persians and Ethiopians all played variations of the game. Several centuries before christofer Columbus found his new world, the Aztec Indians were playing it in Central America. The arcane Indians of Argentina invented a game similar to hockey called "cheuccai" believing it would make them better warriors. Some authors hold the belief that Persia (Iran) is to be the birthplace of hockey. The Greeks borrowed the idea of the game from Persians, and in turn passed it on to the Romans. It then traveled to France and eventually it found its way to Britain (Miroy, 1986; Singh, 1972; Lodhi, 1984). Whereas some historians have found indications that some

structure of the game of field hockey was played by ancient Egyptians, Persians, and Greeks thousand of year before the first Olympic game in 776 B.C. Later as we know that, the Romans influenced the upbringing of the sport during their political and social dominance of present-day-Europe. Connections to field hockey include the German game of 'Kolbe'; the Dutch game of 'Het kolven'. Which is an ascendant of ice hockey; and the French game of 'Hocquet', which many historians believe contributed the name "Hockey" to the lexicon of sport. Other historians have connected hockey to the Irish game of 'Hurling', the oldest organized game to use a stick and ball. Along with hurling, the Scottish game of 'Shinty' and the Welsh game of 'Bandy' all used sticks similar in size and shape with limited rules. The first hockey association was formed in 1875, with governing rules established 11 year later. International field hockey contests were played by men as early as 1895 (Anders, 1999).

The British army helped to spread hockey internationally through the British Empire. Its popularity, especially booming in India. A central organization to control

the game and to lay down a definite code of rules was established in Britain on Jan. 18, 1886. This marked the birth of modern hockey. To make sure hockey was included in the programme for the next Olympics at Amsterdam in 1928, the representatives of seven countries Austria, Belgium, Czechoslovakia, France, Hungary, Spain and Switzerland met in Paris on Jan.7,1924 and decided to form "Federation International de Hockey sur gazon" (F.I.H.) and Paul Leuatey became its first president.

The Federation International De Hockey (F.I.H) was founded on January 7, 1924. Hockey was first introduced in the Olympic Games at London in 1908 and in the 3rd Asian Games in 1958 held at Tokyo. The first-ever Hockey World Cup was organized in Barcelona (Spain) in October 1971. The game has acquired global recognition and is being enthusiastically played in more than hundred countries of the world (Singh, 1972; Hendricks, 1988).

Hockey was brought to India by the Englishmen towards the end of 19th Century. Kolkata lead in the formation of clubs in 1885 and other parts of the country followed the suit. The Beighten Cup tournament in kolkata

and the Agha Khan cup in Bombay, Which later came to occupy a very important place in the hockey competitions in India, were started in 1895 and 1896 respectively.

While interest in hockey grew all over the country, it was once again left to Kolkata to give a lead in the formation of a provincial body to control the game and the Bengal hockey association came into existence in 1908. The Sindh hockey association was formed at Karachi in 1920. The hockey association in Bihar, Gwalior and Western India came into existence in 1923. Delhi hockey association was formed in 1924 and Punjab hockey association in 1925. The army sports control board which played a leading part in the formation of the Indian hockey federation was established in 1919.

The foundation of Indian hockey federation was thus laid with Col. Bruce Turnbell as president and N.H. Ansari as honorary secretary. It was however not till 1927 that the federation started functioning as an active body. It's head quarter was shifted from Gwalior to Delhi and Mr. T.P.Gateley former president of the Delhi Hockey association took over as honorary secretary and Major Burn Murdock

became the president. It was during Major Burn's regime that India sent its first team to Olympic Games at Amesterdam in 1928. India made a grand debut in the Amesterdam Olympics by winning the gold medal. It was the first ever gold won by India in world of sports.

Thereafter India won gold in Los Angeles 1932, Berlin 1936, London 1948, Helsinki 1952, Melbourne 1956 Olympics continuously thus showing total dominance. Hence, beginning with the victory in its first appearance in 1928, India created a maiden record of six wins in Olympic Hockey, one that is unlikely to be equaled by any other country in near future (Hndricks, 1988; Singh, 1972; McWhirter, 1984; DeMellow, 1980; Babu, 1981). Olympic Games could not be held in 1940 and 1944 due to the World wars. And it was the first time that the Olympic gold was won by Pakistan in Rome 1960, defeating India in the final. India won the gold medal for 7th time in Tokyo Olympics 1964. The Mexico Olympics started disasterously for India when it lost the first match to New Zealand by 1-2, eventually satisfying with bronze.

Munich Olympics 1972 proved that hockey was not a monopoly of the Indian subcontinent when Germany won the gold and India again finished with Bronze. India finished at poor seventh in Montreal Olympics 1976, but won gold in Moscow Olympics 1980. In Los Angles 1984 and Seoul 1988 India again failed to reach the semifinals (Fifth and sixth rank). Barcelona 1992 Olympics started with hope that India will prove his worth but again faced humiliation by not reaching in the semifinals (Seventh rank) and the same repeated in Atlanta 1996 (eighth rank), Sydney 2000 (seventh rank), Athens 2004 (seventh rank) and Beijing2008 (Failed to qualify).

World cup is another major competition where the real hockey power of the world is tested. This competition started in Barcelona in 1971 Where India got third position and gold was bagged by Pakistan, India lost in final at Amsterdam in 1973 to the host Netherlands, but in the next world cup India managed tc win the gold medal at Kualalampur in 1975, later in all world cups India failed to reach even in semifinals. Since 1975, India has not won any medal in the World Cup,

failing to even reach the semi-finals, with one miserable performance after another.

In Asian Games, hockey was introduced in 1958 and since then like Olympics this competition is being held every four years. India managed to win the gold in Asian games only at Bangkok in 1966 and 1998; India retained his second position till 1982. In 1986 Asian games South Korea gave brilliant performance by winning gold. This was the first time when the gold medal went to a country other than India and Pakistan. India finished at poor third. At Beijing 1990 and at Hiroshima 1994 India secured second position. Again India manage to beg gold at Bangkok (1998) and silver in Busan, South Korea (2002) but fail to continue then after.

The story of last two decades is pathetic as India could not enter even in semifinals of either Olympics or world cup. A lot of criticism comes in the press. However the Indian team is selected to represent country in an International competition, all blame is put either on the selectors or on the coaches but till today national sport agencies, institution and policies could not demonstrate/initiate firm line of action to reason the disastrous fall of the National Sport with respect

to international sport challenges. Recent miserable performances from Indian hockey stimulated the investigator to academically explore the hidden facts on the basis of selected psychological parameters to contribute some in taking back the Indian hockey, to its glory road.

Statement of the problem

The present study will focus on the selected psychological parameters i.e. locus of control, adjustment and self-confidence in relation to the performance of hockey players; it may help in finding out the differences among high and low performers with regard to the selected psychological variables. Therefore, the present empirical investigation has been entitled as:

"A study of Locus of Control, Adjustment and Self-confidence as related to performance of hockey players".

Hypotheses

On the basis of the orientation received from the critical review of related literature, the following hypotheses have been formulated-

- High performance hockey players will significantly differ from low performer counterparts with regard to their locus of control.
- There will be significant differences on self-confidence, between high and low performers.
- There will be significant differences between high and low performer hockey players with regard to the adjustment.

Objectives of the Study

From 1928 to 1956 we were the shoo-in for the field hockey. Even today we are considered as a power in the game to be reckoned with. There are so many factors responsible for our decline but the most outstanding one may be the lack of concerted efforts of the sport scientists. In recent years they have tried to devote their efforts towards the enhancement of performance of our hockey players but still much remains to be done. In this context the present study is a genuine and fair effort to fill the scarcity. At the same time review of related literature has convinced the investigator that psychological variables such as locus of control, adjustment and self-confidence influence performance significantly in sport.

It has also emerged that researchers have tried to investigate the influence of these aspects of personality on performance individually. To the best of our knowledge no attempt has been made to collectively study the influence of locus of control, adjustment and self-confidence on performance of hockey players. Apart from it the study has following objectives:

- To examine the relationship between locus of control and adjustment among hockey players.
- To gauge the relationship between locus of control and self-confidence among hockey players.
- To examine the relationship between adjustment and self-confidence among hockey players.
- To examine the relationship between locus of control and performance among hockey players.
- To examine the relationship between factors of internal locus of control and performance among hockey players.
- To investigate the relationship between factors of external locus of control and performance among hockey players.

- To find out the relationship between adjustment and performance among hockey players.
- To gauge the relationship between dimensions of adjustment and performance among hockey players.
- To investigate the relationship between self-confidence and performance among hockey players.
- To examine difference between mean rank of high and low performance hockey players on locus of control.
- To examine difference between mean rank of high and low performance hockey players on factors of internal locus of control.
- To gauge difference between mean rank of high and low performance hockey players on factors of external locus of control.
- To examine difference between mean rank of high and low performance hockey players on adjustment.
- To examine difference between mean rank of high and low performance hockey players on dimensions of adjustment.
- To gauge difference between mean rank of high and low performance hockey players on self-confidence.

- To prepare the psychological profile of university level hockey players with regard to the selected three psychological variables.

Limitations

- Expected biased approach of the respondents may be one of the limitations of the study.
- No special technique will be used to motivate the subjects during the test.
- Casual attitude of the respondents can also be considered as the limitation of the study.
- No sophisticated equipment will be used in this study, which may be considered another limitation of the study.

De-limitations

- The study will be de-limited to the investigation of only three psychological parameters e.g. locus of control, self-confidence and adjustment.
- Further the study will be de-limited to the student population of university level hockey players.
- The study will have further restrictions to the male population between the age group of 18 to 25 years.

- The study will be de-limited to the hockey players representing various universities of North-Zone only.

Significance of the study

The findings of the present investigation would help in a long way to sports administrators, coaches, players and sport corporate houses in the selection and promotion of outstanding hockey players; and none the less, undoubtedly it would also extend the knowledge and rejuvenate the efforts of the academic and clinical professionals of sport psychology. The results of the present study would also help in formulating the psychological coaching and training programs of the athletes tacking in to account the psychological preparation too. The study will also be helpful in providing new source for guiding further research studies in similar directions. Further, the understanding of the predictors of performance may lead to the facilitation of the techniques and tactics to develop those characteristics, which have bearing on performance.

Chapter-2
Review of Literature

REVIEW OF LITERATURE

The researcher tirelessly gone through numerous concerned sources of targeted study domain i.e. journals, published and unpublished thesis/dissertations, books of proceedings seminars and conferences in order to systematically peruse the present investigation. The literature reviews act as a torch bearer for the investigator by facilitating right direction through logical guidance and barring from any deviations. The review of related literature reveals that lots of researchers have ventured to explore the relation of locus of control, adjustment, self-confidence and other psychological variables in terms of sport performances individually or with some other variables but no effort has been made in terms of the present unique combination i.e. locus of control, adjustment and self-confidence as related to the performance of hockey players, as initiated by the investigator in the present study. In this respect the study has great credibility for psychological intervention of sport and faded glory of Indian hockey.

Locus of control

Researchers have shown that the internals and externals have different reactions to organizational factors particularly with regard to involvement in decision making. A general conclusion is that the internals do well in managerial and professional positions involving

information processing, initiative, and independent decision making. The director of a university athletic department, the chief of a city recreation department or a sport agent will do well if he or she has an internal locus of control. On the other hand externals do well in positions that require strict adherence to rules, regulations, and directives from superiors (Robbins, 2000). A psychologist claimed that items measuring the general sense of internal locus of control often also imply greater confidence of good outcomes (Corner, 1997).

Ghuman and Dhillon (2000) assessed the factors influencing the sports career of the players, who participated at the all India Women Hockey Tournament. The sample of the study consists of 128 players and were divided into two groups, 64 players of four teams participated but failed to achieve any position (up to semifinal) in the tournament and 64 players of four teams who attained the first positions in the tournament. To collect the required information the Inventory of Factors Influencing Sports Career (IFISC) of Kamlesh & Sharma (1986) was administered to measure the internal control factors, i.e. game/skill superiority, practice and ability, and external control factors, i.e., financial backing, equipment and coaching, luck and the influence of high ups. The't' test was applied to draw the meaningful inferences. The results of the study revealed that factors influencing sports career

of the players of teams which attained the positions in the tournament, showed higher scores on all internal control factors, i.e., games/ skill superiority, practice and ability than the players participated in the tournament but failed of achieve the positions: Among the external control factors, financial backing went in favour of participating team players who did not obtain positions, but the picture about other factors of equipment and coaching, luck and the influence of high ups could not show any effect or significant differences.

Kamlesh (1989) studied on one hundred twenty two male and eighty-one female athletes from Patiala and Gwalior. The sportsmen included were those having represented atleast at the intervarsity and/or national and/or international levels. Their age ranged from 21-33 years in case of males and 20-27 in case of females. Some of these factors were found to be intrinsic while some other extrinsic. In all twenty question-statements varying around internal and external factors were framed. The inventory forms prepared were administered. It was concluded that: (1) Although internal and external factors complement and supplement each other but most sportsmen, within the limits and limitations of the study rely more on internal control factors as determinants of their sports career (2) In this case, sex difference does

not imbalance the conclusion. (3) Male sportsmen give significantly higher weightage to external control factors than do women.

Antony and Yadav (2006) conducted a study to assess and compare the locus of control of male volleyball players at different levels of achievement i.e., senior youth and junior National level. The sample of 180 male volleyball players were selected i.e. 60 in each group. Locus of control was determined by the hindi adaptation of Rotter's scale prepared by Kumar and Srivastava (1993). The volleyball playing ability scale prepared by Yadav (1989) was used to assess the Volleyball performance. The subjects were assessed by performance analysis of five components of play i.e. Serve, Organization of Attack, Attack, Block and Court play, or Floor Defense. Each component was analyzed separately by five experts and the subjects were evaluated during their match in respective national championships. The average scores of five experts' ratings on all the five components together were recorded as the score of the subject. The scores of locus of control in all the three levels of Volleyball players are above average. Findings of Lynn, Phlean (1969), Morris, Vacero and Calarake (1979), and Kumar, Pathak and Thakur (1977) Support the findings that team athletes were internally controlled than the individual athletes.

Freischlag's (1976) examined a socio-psychological concern, locus of control (LOC) for its relationship to several parameters of sports participation. Three hundred and ninety-seven male and female athletes responded to a multi-dimensional LOC scale. Data obtained from randomly selected members of these team sports groups and their individual sports groups at high school and college levels. Because uni-dimensional I-E scales such as Rotter's have been shown to luck validity in measuring this construct, Levenson's scale was used which altered the Rotter questionnaire to which Likert-type responses were generated. Each of the dimensions was represented by equal number of items. An initial analysis of LOC was made in terms of male v/s female, team sports v/s individual sports and high school v/s college level of participation separation of LOC into there orientations might be expected to result in each being fostered by different antecedent conditions. Further examination was therefore made of the influences of coach religion, parents, family size and birth order on the dependent variables. Analysis of variance and stepwise regression tests were run on the data. Significant differences were found in the initial analysis. LOC was also found to be differentially related to combinations of the selected antecedents.

In the area of competitive sport, McAuley (1985) found that female intercollegiate gymnasts who performed well and perceived their performance in competition as highly successful, made more internal, stable, and controllable attributions than those who scored lower and perceived their performance as less successful.

Finn and Straub (1977) examined to compare the locus of control of highly skilled Dutch (N=35) and America (N=44) women softball players. The Rotter internal-external locus of control scale was utilized to determine internal-external orientations of the subjects. Data were analyzed by using ANOVA and product moment correlation. Statistically significant (.01 level) difference in locus of control was found. American women softball players were significantly more internally oriented than were there Dutch counterparts.

Sollo's (1980) study has two folds: to determine the locus of control of active (N=86) and non active (N=69), physically disabled two years (N=57), and four years (N=98), college students and to determine if the more externally oriented physically disabled four years college students would change their locus of control towards greater internally through participation in a specially designed physical activity program. Locus of control was determined for all senior students by the Adult Nowicki-Strickland, Internal-External Scale. The specialized program

consisted of one hour activity session, twice per week a period of six weeks and fifteen minutes counseling meeting which took place on an individual basis once a week. Using a two way ANOVA no difference was found between active and non-active disable college students. However, there was a significant difference in locus of control between the two years junior college and; the four years state university senior students. With junior college senior students being more external. The locus of control of the desirable students in the experimental group (n=9) was significantly shifted towards a more internal orientation following participation in a specialized physical activity program relative to a control group (N=9) which did not participate in program.

Kuthri (1988) determined the relationship between athlete's performance and (self-concept, locus of control and level of aspiration) in an actual competitive setting. The relationship between athlete's expectations and the expectations held by their coaches were also determined. The total subjects required for this study were eighty-four (male =71 and female =13) elite track and field athletes who participated in the Iraqi Track and Field Championship during spring of 1986. All subjects were given the modified Self-Descriptive Questionnaire (SDQ). Marsh et. al; and the Rotter's Internal- External Scale to measure self-concept and locus of control, respectively. Specific

track and field events were used to examine subject's performance. Level of aspiration was determined by asking each athlete to predict his/her performance a few minutes before each trial in which she was scheduled to compete. The same procedure was used to measure coach expectations for their athletes.

The subjects were classified as high or low in self-concept, high or low in level of aspiration, and internal or external in locus of control. Three different measures of performance were considered in this study: (1) improvement of personal performance, (2) competitive performance, (3) contextual performance. The data were analyzed using Pearson's Product Moment Correlation Coefficient, ANOVA, and stepwise Multiple Regression Procedures. For all analysis, the .05 level of significance was used. Results of the analysis revealed that: (1) Athletes performance (as measure by improvement of personal performance, competitive performance and contextual performance) were significantly correlated with their level of self-concept. (2) Athlete performances (as measured by improvement of personal performance, competitive performance and contextual performance) were significantly correlated with their locus of control. (3) Athletes performances (as measured by competitive performance) were significantly correlated with their level of aspiration. However, no

significant correlation found between level of aspiration and athlete's performance (as measured by improvement of personal performance and contextual performance). (4) There was a significant correlation between athletes expectations held by their coaches.

Manning (1991) investigated attributes among female athletes at the middle and high school level. The variables under consideration were self-esteem, sex-role orientation, locus of control, commitment to sports, birth order and type of sports chosen, and the person most influential in socializing the athletes into competitive sports. While interest focused on female athletes in general, additional investigation of individual and team sports participation was conducted. The subjects were one hundred and fifty two students whose ages ranged from 12 to 19 years and whose grades levels ranged from 7th to 12th grade. Individual and team sports represented in the study included tennis, swimming, diving, gymnastics, softball, basketball, volleyball, soccer and track and field.

The results indicated that self-esteem among female athletes was well developed and similar to their non- athlete counterparts. Today's female athletes at the middle and high school level view themselves as more internally directed and more in control of the path that they choose to take. While their choice of sport may be a function of socio-

economic status and opportunities available, internal does not hinge on ordinal position in the family. With a change in social attitudes, female athletes appear to be receiving encouragement from various persons in their environment and no longer need to rely solely on their family for support.

People with an external locus of control appeared to prone to a variety of symptoms of stress including emotional distress, job dissatisfaction, Burn-out and low Self-esteem (Kasl, 1989).

Porat, Lufi and Tenenbaum (1989) studied the role of self-concept, locus of control and anxiety on 20 competitive gymnastic girls aged 7 to 9 years. During one year longitudinal study the subjects were administered the Tennessee self-concept scale, a locus of control scale for children, and the state-trait anxiety scale. Following a year of training subjects participated in Gymnastics competition. Ten psychological measures accounted for the performance variance. Personal self-concept was reported to be the best predictor of successful performance in competition followed by locus of control, identity self-concept and trait anxiety.

Many researchers believe that the sense of control is an important element in successful adjustment to stressful events (Baltes & Baltes, 1986; Taylor, 1983, 1990; Taylor and Brown, 1988; Thompson and

Spncapan, 1991; Weiner,1985). Geir, Marije, Koen and Chris (2006) studied the control beliefs and anxiety experienced by ten elite soccer players in the context of a major tournament penalty shootout. Measures included interview questions and CSAI-2R (Cox, Martens, & Russell, 2003) with direction instructions (Jones & Swain, 1992). The result indicate that, those participants who believed that a considerable part of the outcome of a penalty shootout is based on luck interpreted as more debilitative to their performance than the players who believed that skill is more important to the outcome.

Slobodanka, Snezana, and Dragan (2006) explored the relationship between some elements of self-concept (general self-esteem and locus of control) and going in for sport in adolescence. The relationship between going in for sport and variables of self-concept (general self-esteem and external locus of control) was investigated in a sample of 300 adolescent boys and girls (150 sportsmen and 150 non-sportsmen). Modification of the Rosenberg's general self-esteem scale and Bezinovic-Savcic's Scale of externality were used to measure variables of self-concept. The significant positive correlation between variables of going in for sport and general self-esteem, as well as negative ones between variables of going in for sport and external locus of control were found in the whole sample of subjects and in the sample

of boys, but not of girls. The sex role stereotypes and greater importance that the culture puts on success in sport for boys seemed to have contributed to such results. The sex differences in correlations between variables of self-concept and going in for sport suggest that going in for sport influences general self-esteem and locus of control in adolescents through social feedback and social evaluation of sport achievement and physical fitness.

Nigam (2001) conducted a study on three hundred and fifty inter-university level male cricket players representing their respective university in the west zone and inter-zonal cricket tournament held in Bhopal (M.P.) during December and January 1999-2000. Three fifty cricket players were selected as the subjects of the study. The age of the subjects ranged between 17 to 25 years with the average of 20.8 years. The task and ego-orientation in sports questionnaire (TEOSQ) by Duda and Chi (1994), perceived purpose of sport questionnaire by Duda (1989), locus of control inventory of factors influencing sports career by Kamlesh and Sharma (1986), and Trait self-confidence inventory by Vealey (1986) were administered on all the subjects. Following summative conclusions were enlisted:

1. Inter-university level male cricket players were internally controlled.

2. One's cricketing ability, luck, equipment and coaching were the most important internal and external factors influencing individual's cricketing career as perceived by inter-university level male cricket players.

3. The inter-university level cricket players gave more importance to physically active life style, functions of sports participation, and improvement in an individual's co-operating skills and desire for personal mastery among the purposes of participation in cricket.

4. The task-oriented inter-university level male cricket players were high in task-orientation, should learn the value of trying ones best, co-operating with others, following the rules and being a good sportsman. Secondly task-oriented perspective was also linked to the view that sports should socialize people into being honest, respectful and concerned about the society enlarge. Sports participation should enhance self-esteem, social status and increase the probability that people will adopt and maintain a physically active life style.

5. The ego-oriented cricket players placed a greater emphasis on the concept that, the cricket should increase one's social status and should help to earn more money.

6. The inter-university level male cricket players with different levels of self-confidence differed significantly in their task-orientation and internal locus of control. The players higher in self-confidence gave more importance to task-orientation and were more internally controlled.

In a study Bhadana, Rathore & Jakhar, (2001) assesed the factors influencing sports career and adjustment of the players, who participated in the various level of competitions. The sample consisted of 134 players of various sports was divided into two groups, 72 players of various sports named sportsmen (Group one) and 62 boxing players named Boxers. To collect the required data, the 'Inventory of Factors Influencing Sports Career' (FISC) by Kamlesh and Sharma (1986) and 'Revised Adjustment Inventory' (RAI) by Kamlesh and Kumar (1975) were administered to measure internal factors, i.e. game/ skill superiority practice and ability and external factors, i.e. financial backing, equipment and coaching, luck, influence of political high ups and adjustment. The 't' ratio was applied to compare the mean difference between sportsmen and boxers. The results demonstrated that sportsmen showed higher scores on all internal factors i.e. games superiority, practice and total scores and adjustment than the boxers. On the external factors i.e. financial backing, luck and total scores,

boxers showed higher scores than the sportsmen of various sports. In case of external factors (equipment and coaching) boxers showed lower scores as against the sportsmen of various games. On factors like practice, financial backing, equipment and coaching the sportsmen and boxers differed significantly.

In a multidimensional study Sekhon (2002) evaluated 192 hockey players of university and college level in terms of skills, physical fitness, certain selected psychological and physiological variables. He concluded that there was no significant difference between college and university level hockey players in push, Friedel field hockey playing ability, pull ups, external locus of control and vital capacity. Whereas in terms of shooting, dribble and roll, sit ups, standing broad jump, shuttle run, 50 yds and 600 yds, internal locus of control, self-confidence, emotional competence, resting heart rate, university hockey player differs significantly to college level hockey players.

Adjustment

Cronbach (1960) described adjustment as a means to the end of accomplishment. The adjusted person is one who commits himself to socially desirable goals and makes use of his energies efficiently towards their accomplishment. Frost (1970) warned that social and cultural forces are operating constantly and a meticulous understanding

of these is absolutely necessary in any attempt to unreveal the factors causing revealing behavior and its change in sports settings.

Sharma (1993) explored the relationship between adjustment and performance of team athletes. Bell's Adjustment Inventory (1962) was administered on a randomly selected sample of 240 male athletes drawn from the colleges of Chandigarh. The results suggested that the relationship existed between high performance football players with regard to health adjustment only. Low performance basketball players showed negative relationship on health and emotional adjustment.

Biddulph (1954) observed differences between superior athletic groups and less skilled groups. The superior athletes showed higher level of personal and social adjustment than less skilled athletes. He advocated that adjustment has a positive relationship with athletic performance. VanYperen, (1995) studied casual relationship between performance level and inter-personal stress among the 65 highly skilled soccer players aged 15-22 years. Special attention was paid to the moderating effect of parental support. No evidence was found that interpersonal stress within the team was an important determinant of performance level. It was reported that the low performance level leads to negative feelings about the social adjustment within the team specifically when there was a perceived lack of parental

support. The findings of this study has advocated the influence of home and social climate on performance of players.

Panda and Biswas (1989) examined the personality adjustment of high and low achieving Football players. Fifty high and fifty low achieving Football players were matched on age, education, birth order, and social status. Subjects were administered Moudsley Personality Inventory and the Essenck Personality Inventory (Psychoticism Scale). Players with high achievements were found to be more extroverted, confident, anxious, emotional, phobic and tender minded as compared to the players with low achievement. High achievers scored significantly higher on psychoticism scale than low achievers.

Nangia and Sengar (1989) investigated the differences in the level of adjustment of sportsmen and sports women as well as between athletes and non-athletes. Sinha and Singh adjustment Inventory (1980) was administered on 320 athletes and non- athletes of University level. Subjects included players of baseball, volleyball, Cricket, athletics, Badminton, Table-Tennis, Hockey (athletes group) and a group of non-athletes. 't' test was employed for statistical analysis. Findings indicated significant differences in adjustment level of athletes and non- athletes. Viz-a-viz among the players of team and individual sports.

Kumari (1988) studied the adjustment of sports and non-sports school girls of Himachal Pradesh. The sample consisted of 600 girls (300 sports and 300 non-sports girls). The Adjustment Inventory by Sinha and Singh (1984) for School students was used. It was reported that sports girls belonging to rural and urban areas were better on all dimensions of adjustment i.e. emotional, social and educational than non-sports girls. Significant differences between rural and urban girls on emotional, social and educational adjustment were found. The rural sports girls were found to have better emotional adjustment as compared to the urban sports girls. On social adjustment, sports and non-sports rural girls were also found better as compared to their urban counterparts. However, the urban girls (both sports and non-sports) were found better than the rural sports girls in educational adjustment.

Bhatti (1987) gauged the level of adjustment of athletes and non-athletes by administering Bell's Adjustment Inventory. A descriptive analysis showed that home adjustment of non-athletes was significantly higher than athletes. No differences were observed in their health, social and emotional adjustment. Basketball group was found to be emotionally better adjusted than non-athletes. Football group was found to be superior in health adjustment, but inferior in social

adjustment as compared to non-athletes. No differences were observed in home and emotional adjustment.

Rani (1974) using Bell's Adjustment Inventory examined the personality adjustment differences among 170 athletes and non-athletes. The data was analyzed by using Mean, Standard Deviation (SD) and t-ratio. It was reported that difference in personality adjustment of athletes and non-athletes was significant. In the individual events, badminton players had better home adjustment than track and field athletes, wrestlers and tennis players. In team games, hockey players were better adjusted on health as compared to football, volleyball and basketball players. Non- athletes tended to have better home adjustment and poor health adjustment than athletes. Similarly, Koening (1969) assessed personality differences between basketball players and non-athletes. Significant differences were found pertaining to sociability, emotional control and group orientation between athletes and non-athletes.

Grewal (1986) investigated inter-personal relationship of physical fitness and attitude towards physical activity and adjustment among 549 students of various Colleges of Punjab University, Chandigarh. The findings revealed a significant relationship between attitude towards physical activity and adjustment. However, no

significant relationship was found between physical fitness and attitude towards physical activity. Robert (1964) administering the AAHPER Physical fitness Test and the Washburne Social Adjustment Inventory evaluated the physical fitness and adjustment of college Students. No significant differences in the scores of basketball and football players on the adjustment inventory were observed. He further suggested that various factors must be thoroughly probed to determine the need of players to help them in their emotional and social adjustment.

Alegaonkar (1989) studied self-concept, adjustment and physical fitness of sixty-two boys in the age group of 12-14 years. The results suggested that self-concept was associated with some of physical fitness aspects. It was concluded that the self-concept and physical fitness were highly related and also adjustment was related significantly with self-concept and physical fitness.

Brownfein (1952) reported that individuals with stable self-concept were better adjusted than their counterparts with instable self-concept. The former were found to be free from inferiority complex, better liked by others and showed less compensatory defensive behavior. This finding is important specially for the players of team games.

Bala (1994) studied the relationship of anxiety, self-concept and adjustment with the performance of Volleyball players. She used set-concept Questionnaire of Saraswat (1984), Adjustment Inventory of Sinha and Singh (1980) and State Trait Anxiety Inventory of Roma and Tiwari (1984). The sample of 500 male and female volleyball players was randomly selected from the colleges affiliated to various Universities of Haryana. The age of the subjects ranged between 17 to 24 years. Analysis of Variance (ANOVA) was used to explore the significance of differences and interaction of sex and performance for each variable. 't' ratios were also computed to assess the level of significance of the differences. The findings indicated that (i) male College Volleyball Players (high performers) were significantly better on health, emotional and total adjustment than the low performers (ii) no significant differences were observed between the two groups on home, social and educational adjustment. Male players were significantly better than female players on home, social, emotional and on total adjustment. However, no significant differences were observed between two groups on health and educational adjustment.

Robert and Stephanie (1996) tested the relationships between physical self-concepts and contemporary measures of life adjustment. University students (119 females, 126 males) completed the Physical

Self-Perception Profile assessing self-concepts of sport competence, physical condition, attractive body, strength, and general physical self-worth. Multiple regression found significant associations ($P < 0.05$ to $P < 0.001$) in hypothesized directions between physical self-concepts and positive affect, negative affect, depression, and health complaints in 17 of 20 analyses. Thirteen of these relationships remained significant when controlling for the Bonferroni effect. Hierarchical multiple regression examined the unique contribution of physical self-perceptions in predicting each adjustment variable after accounting for the effects of global self-esteem and two measures of social desirability. Physical self-concept significantly improved in associations with life adjustment ($P < 0.05$ to $P < 0.05$) in three of the eight analyses across gender and approached significance in three others. These data advocated that self-perceptions of physical competence in college students were essentially related to life adjustment, independent of the effects of social desirability and global self-esteem. These links were mainly with perceptions of sport competence in males and with perceptions of physical condition, attractive body, and general physical self-worth in both males and females.

Sharma (1984) administering Cartel's 16 PF Questionnaire, suggested that aggressiveness had been retained by the basketball,

football and volleyball groups barring hockey players. Similarly, emotional stability had been found in the personality profiles of football and hockey players. But the same factor was not retained by the players of basketball and volleyball groups. Social precision was observed in the personality structure of football, hockey and volleyball players. Findings also revealed that the sportsmen representing university teams tend to be emotionally stable, conscious, trusting, group dependent and practical.

Mann (1988) compared the psychological characteristics of individual and team athletes. A total number of 202 University athletes (88 individual and 114 team games) were administered Adjustment Inventory for College Students, Sinha and Singh (1980), personality Questionnaire Mohan and Virdi (1985) and Mohan's cognitive vigilance Task (1982). Using multivariate analytical procedures it was found that (i) Individual and team athletes do not significantly differ from one another on various areas of adjustment except educational adjustment, where the difference was found to be significant, (ii) Marked inter-sports differences on all areas of adjustment, were reported; (iii) The athletes of basketball, boxing and handball groups indicated significantly better all-round adjustment, whereas the athletes from track and field and hockey groups being

poor on adjustment differed considerably from other sports groups. Successful athletes differed significantly from unsuccessful athletes on all areas of adjustment.

Kaur (1992) studied the relationship between adjustment with regard to performance and gender in team sports. Sinha and Singh (1980) Adjustment Inventory was administered on a sample of 320 athletes (160 male and 160 female) randomly selected from College and Universities of Haryana and Chandigarh. The following inferences were drawn:

i. College and University athletes differed significantly on Social, emctional and total adjustments.

ii. The male athletes from the team sports were found better adjusted than the female athletes from the same sports on all the areas of adjustment, except home wherein the differences between the two groups were insignificant.

In a well designed investigation Yadav (1992) studied personality traits, adjustment and socio-economic status of 400 University and College level football, volleyball, basketball, handball, cricket, badminton and lawn tennis players. The findings indicated that team sports athletes scored significantly higher than individual sports players on health, social, emotional and educational adjustments. The basketball and handball players were found better adjusted as

compared to all other groups on health and home adjustments, respectively.

Antonelli and Mascellani (1973) studied adjustment of 351 Italian elite athletes by administering Bell's Adjustment Inventory (1962). They observed that male athletes were better adjusted than female athletes. It was reported that the athletes from volleyball, fencing, track and field and sailing were better adjusted than athletes belonging to cycling, rowing and gymnastic events.

In a classical study Ali (1996) studied the relationship among Self-concept, Body image, adjustment and Performance of hockey players of Uttar Pradesh universities. 224 hockey players of different universities were the universe of this study. The inventories employed for the data collection were, Performance rating scale (develop by the investigator), Self-Concept Scale (Rastogi, 1976), Body Image Test (Singh 1991) and Adjustment inventory by Sinha and Singh, (1980). The results of the study revealed that the players who demonstrated high level of performance scored significantly higher on self-concept, body image and adjustment as compared to the players with a low level performance.

Rathore, Bhadana and Singh (2001) studied the sample of 60 (Sixty) Rajasthan state junior boxers with respect to sports special ability

and its relationship with anxiety, aggression and adjustment. Inventory of factors influencing sports career (IFISC) by Kamlesh and Sharma (1986), Sports Competition Anxiety Test (SCAT) by Martens (1977), Aggression Questionnaire of Smith, cited by Carron (1973), Revised Adjustionnaire, Kumar (1983) were administered on the subjects. The analysis of data was revealed the relationship between sports special ability and anxiety were found significant. The results also support significant relationship between internal factors of sports special ability and adjustment of boxers. Within the limitations the following conclusions are drawn:

1. It was concluded that internal factors of locus of control have significant relationship with level of sports competition anxiety among boxers of state level.
2. It was further concluded that higher the level of skill, ability to perform and practice of the skill leads to bring down the level of sports competition anxiety among boxers.
3. The factor of adjustment was significantly related to the internal factors of locus of control of boxers.
4. The external factors of locus of control like chance, luck, influences of high CPS increases the level of sports competition anxiety among boxers.

Tiken, Meitei, Joy and Inaobi (2004) conducted the study on one hundred boys who were undergoing training at SAI (NERC) Imphal Inmates considered from 7 disciplines at 7 centers, viz. STC Takyel, SAG Khuman Lampak, STC Shillong, STC Dimapur , STC Aizawl and SAG Arunachal Pradesh, for Social and emotional adjustment on individual body contact sports and team sports. Fifty athletes participated in team games i.e. Football, Hockey and Sepak Takrew and another fifty athletes participated in individual body contact sports i.e. tac-kwondo, judo, boxing and karate were randomly selected and used as subjects in the study. Bell's adjustment scale (1961) to measures emotional and social adjustment of the athlete's was used. It was reported that participants in team sports were more socially and emotionally adjusted in comparison to the athletes' belong to individual body contact sports.

Self- Confidence

Ghuman and Dhillon (2000) studied the Indian universities women hockey players with an aim to assess 'will to win' & self confidence of the players who participated in the All India Women Hockey tournament. The study was carried out on 112 players, out of which 64 players of four teams participated but failed to achieve any position in the tournament and 48 players of three teams attained the

first three positions in the tournament. To collect the required information's the Will to win questionnaire of Kumar & Shukla (1988) and Agnihotri's (1987) self confidence inventory (ASC) were administered to gauge will to win & self confidence of women hockey players respectively. The't' test was applied to find out the results. The results of study revealed that "Will to win" in the players of teams which attained the position in the tournament showed higher score than the players participated in tournament but failed to achieve any position. On 'self confidence' the players of the teams which attained the position in the tournament showed higher level of self-confidence and vice-versa than other players.

Mills (1996) investigated the relationship of state sports confidences with preference to swimming and found that genre was indicator of swimmer's performance and state sports confidence on the peak and flat start.

Morris (1996) conducted a study to assess any change a golfer experienced in his/her putting confidence over the course of an applied intervention program and examine how and why their change took place. In an effort to evaluate the intervention program as it would typically occur in "real life" this study employed a case study methodology. Specially, the researcher observed and interviewed a

male participated over the course of eleven weeks attempting to learn what occurred during the intervention program that facilitated confidence in his putting. The golfer in the present study increased his putting confidence by experience success from utilizing several confidence enhancing strategies. Strategies which the participants viewed as concrete, such as a pre shot routine and a purposeful practice agenda were most responsible for the increase in his putting confidence. Strategies which the participant felt were more abstract, such as modeling and emotional arousal, were less responsible for his increase in confidence. The cause and results of the participants change in confidence were discussed in respect to the measure; theories of confidence enhancement (Bandura's et.al.) and consideration for future research were presented.

Vealey (1995) has conducted an study undertaken to develop (a) a theoretical frame work to conceptualized self-confidence based on the unique context to sports, and (b) valid instrumentation to effectively operationalzed self-confidence as conceptualized in the theoretical model. An interaction sports specific model was developed in which sports confidence was defined as the degree of certainty athlete possessed about their ability to be successful in sports based on the trait- state distension advocated by personality theories. Sports

confidence was conceptualized into trait (sc-trait) and state (sc-state) components within the model. Thus an instrument to measure sc-trait (TSCI), an instrument to measure sc-state (SSCI), and an instrument to measure competitive orientation (COI) were developed and validated in order to test the relationship represented in the conceptualized model.

Validation procedure included four phases of data involving six hundred and sixty six high school and college athletes. All three instruments demonstrated adequate item discrimination, internal consistency, test-retest reliability, content validity and concurrent validity. In the construct validation phase, the result supported several predictions based on the conceptual model. Sc-trait and competitive orientation were significant predictors of sc-state perceived ability, perception of past success in sports, causal attribution for performance, and satisfaction with performance. The results were equivocal with to the ability of sc-state to predict behavior. However, males and older athletes and more experienced athletes were significantly higher in sc-state than females, young athletes and less experience athletes. Actual sports performance as well as perceived sports performance was significant predictors of post-competitive sc-state.

Lirgg (1991) studied the apparent lack of self-confidence in physical activity by females compare to males which has been a recent

concern of some researchers in sports psychology. He suggested that females would be less confident than male when the task was male oriented or when the situation was competitive. This meta-analysis was conducted to examine the magnitude of gender difference in self-confidence in physical activity according to Lirgg's assertions. An overall non-homogeneous effect size of 0.40 favoring males was found. Although masculine tasks produced a larger effect-size difference than natural tasks, it was also not homogeneous. Only one study employed a feminine task, resulting in a large effect-size favoring females. However, the results of a regression analysis which found that sex-type of task contributed to gender difference in self-confidence, did support Lenny's contention. Whether or not the task took place in a competitive situation did not differently affect the magnitude of the gender difference. Age of subjects and type of confidence measure employed are also discussed as possible variables contributing to gender difference in self-confidence.

Lirgg and Feltz (1991) exposed sixth-grade girls to a skilled or unskilled teacher or peer videotaped model demonstrating a ladder-climbing task; control subjects observed no model. Subjects then judged self-efficacy for climbing successively higher levels on the ladder and performed the task over trials. Controls demonstrated poorer

performance than those exposed to models; among the latter, children who viewed a skilled model (adult or peer) performed better than those who observed an unskilled model. Skilled-model subjects also judged self-efficacy higher.

Clinton and Gill (1994) in his study answered Lirgg's call for confidence studies employing a feminine typed task by assessing self-confidence and gender appropriateness in college cheer leading. Questionnaire assessing self-confidence and the gender appropriateness of cheer leading and its five sub tasks (cheers and motions, partner stunts, jumps tumbling and cheer leading dance) were administered to college cheer leaders and to non-cheer leaders college undergraduates it was hypothesized that females would possess more self-confidence in their ability at cheer leading and its various sub tasks than would males, and stereo typed than would non-cheer leaders. Result supported these hypotheses. Only two sub tasks, partner as females did. Females reported more self-confidence on cheer leading and all other sub tasks. Further more, cheer leaders of both sexes were aware of the stereo-types held by other's but viewed, cheer leading and the tasks within it as more gender neutral than did non-cheer leaders.

Mellalieu, Neil, and Hanton (2006) examined that whether self-confidence medicated the relationship between competitive anxiety

intensity and direction. Elite (n = 102) and non-elite (n =144) participants completed the self-confidence subscale of the Competitive Trait Anxiety inventory-2 and the worry and somatic subscales from the Sport Anxiety Scale. Consistent with procedure recommended by Baron and Kenny (1986), linear regression analyses were used. The findings for elite athletes revealed worry intensity to significantly predict self-confidence and worry direction. However, when self-confidence was controlled, worry intensity did not predict worry direction over that which was significantly predicted by self-confidence. Within the analysis for somatic symptoms, only self- confidence was found to predict somatic symptom direction. For the non-elite athletes, worry and somatic symptom intensity predicted both self-confidence and direction, and direction when self-confidence was controlled. The findings for the elite athletes suggest self-confidence mediates the relationship between performers' worry symptoms and subsequent directional interpretations. However, the findings suggest that levels of self-confidence and low symptom intensity are needed for non-elite athletes to demonstrate a less debilitative interpretation.

Woodman and Hardy's (2003) meta-analysis (k= 48) investigated two relationships in competitive sport: (1) state cognitive anxiety with performance and (2) state self-confidence with performance. The

cognitive anxiety mean effect size was r =70.10 (P50.05). The self-confidence mean effect size was r =0.24 (P50.001). A paired-samples t-test revealed that the magnitude of the self-confidence mean effect size was significantly greater than that of the cognitive anxiety mean effect size. The moderator variables for the cognitive anxiety-performance relationship were sex and standard of competition. The mean effect size for men (r =70.22) was significantly greater than the mean effect size for women (r =70.03). The mean effect size for high-standard competition (r=70.27) was significantly greater than that for comparatively low-standard competition (r=70.06). The significant moderator variables for the self-confidence-performance relationship were sex, standard of competition and measurement. The mean effect size for men (r =0.29) was significantly greater than that for women (r =0.04) and the mean effect size for high-standard competition (r = 0.33) was significantly greater than that for low standard competition (r= 0.16). The mean effect size derived from studies employing the Competitive State Anxiety Inventory-2 (r =0.19) was significantly smaller than the mean effect size derived from studies using other measures of self-confidence (r = 0.38).

Panda, Reena and Mittal (2004) studied the gender differences in task and ego orientations; sport self-confidence, competitive trait

anxiety and goal setting styles in elite Indian athletes. The sample comprised elite Indian athletes (n=100) male=51 and female=49. All the subjects were tested on task and ego orientation; sport self-confidence, sport competition trait anxiety and goal setting styles in sports using standardized questionnaires. Zero order correlations were computed among all the variables. T-test was applied to study the gender differences on task and ego orientation, sport self-confidence, sport competition trait anxiety and goal setting styles. Results indicated that male athletes were more ego oriented than female athletes. Significant difference was also found between male and female athletes on success oriented goal setting styles. No significant difference was found out between male and female athletes on competition trait anxiety, sport self- confidence, performance oriented goal setting styles and failure oriented goal setting styles.

Shivetts, Joyner, Czech and Zwald (2007) undertook a study to know the effects of a four week individual goal-setting intervention program on driving accuracy performance, state self-confidence and goal orientation in average golfers. The participants were recruited from two intermediate golf physical activity classes (n = 43). The experimental group (n = 20) was educated on all aspects of proper goal-setting while the control group (n = 23) was asked to do their best. The

Sport Orientation Questionnaire (SOQ; Gill, & Deeter, 1988) was used to measure overall goal orientation. The State Sport Confidence inventory (SSCI; Vealey, 1986) was used to measure each participant's sport confidence. Two-way ANOVA with repeated measures were used to examine the statistical differences between groups for driving accuracy and self-confidence. Correlation coefficients were computed to examine the relationship between pre-goal orientation and driving accuracy performance. The results revealed a significant interaction between goal-setting and driving accuracy performance. However, there was a significant increase in SSCI scores from the pre to post tests for both groups ($p<.001$). Furthermore, the analysis revealed a significant difference between two groups.

Robert (1993) examined the relationship between self-confidence and performance. Male inter-collegiate and high school basket ball players (N=53) completed self-reported measures over a nine game period during their respective seasons. Perceptions of self-efficacy (confidence in hitting performance), competitive state anxiety, effort expenditure and performance were assessed as well as an objective measure of performance (contact percentage). It was hypothesized that previous performance in anxiety would significantly predict self-efficacy and that self-efficacy would mediate the effect of previous

performance and anxiety on effort expenditure and hitting performance. Moderate support for Bandura's model was found in that higher contact percentage were predictive of stronger percepts of efficacy in five games and lower level of somatic and cognitive anxiety were associated with stronger self-efficacy was a predictor of effort and hitting performance in six of the nine games. In all cases, higher percepts of efficacy were associated with increased effort expenditure and greater hitting performance. Results are discussed in relation to self-efficacy theory, as well as the utility of self-efficacy theory as a frame work for investigating the self-confidence performance relationship.

Sport psychology researchers have identified self-effecacy (Dzewaltowski, 1994) and goal orientation (Ntoumanis & Biddle, 1999) as significant predictors of exercise adherence. Those with positive self-efficacy, and those who adopt a task orientation toward physical activity, tend to consistently have higher exercise adherence levels.

Lee (1988) extended, the goal setting concept to studying sports teams in order to examine the relation of goal setting, and self-efficacy to team or group level performance which have been infrequently studied, to date. The mediating role of goal setting in the relation between self-efficacy and team performance was also explored. Results

suggest that setting team goals, self-efficacy strength, low levels of conflict and stress, and low levels of coaches' support, feedback and reward relate to female field hockey teams' winning percentage. Goal setting attributes (goal specificity and difficulty) were found to mediate the relation of self-efficacy strength and team's winning percentage.

Martin's (2006) study, therefore, introduced a treatment reversal coupled with a comparative control experimental design to observe the potential effectiveness of instructor-led goal setting, public posting, and peer-feed-back interventions with three separate university-based exercise classes (N = 35, age M = 22.5years, SD = 1.54). Demographic, Self-Efficacy Scale for Physical Appearance, Achievement Goal Orientation Scale for Physical Activity questionnaires were administered to determine initial and ongoing participant characteristics across exercise prevalence, self-Efficacy, and goal orientation variables as a function of study entrance and ongoing study participation. Exercise program adherence data using a class attendance measure, and participation effort data using an exercise completion scale were also collected. Correlations among (a) self-efficacy and exercise adherence, (b) goal orientation and exercise adherence, and (c) self-efficacy and goal orientation were first conducted using Pearson's r to support literature. Next, change in self-efficacy, goal orientation, and

exercise adherence measures were analyzed as a function of treatment exposure using a 3 x 3 analysis of variance. Correlation results showed that high self-efficacy and task oriented goals were consistent predictors of exercise participation. Experimental results indicated that both public posting and peer-mediated instruction, were effective in (a) increasing exercise adherence, and (b) changing both self-efficacy levels and goal orientations in directions compatible with the existing exercise adherence literature.

Miller (1992) undertook a study on the relationship between motivation and self-efficacy in swimmers, ice-hockey and basket ball players. They were examined in three separate field investigations. The data analysis produced inconclusive results. Although the positive Pearson's Product Correlation obtained in the swimming study (R=.30, p>.003) and hockey study (R=.39, p>.001) were significant, the association between self-efficacy and motivation was not as strong as was anticipated. Additional support for this conclusion was provided by the width of the 95% confidence intervals: swimming (.10, .52) and hockey (.23, .54). The Pearson Product Moment Correlation obtained in the basketball study was not significant. The most important finding emerged was that the low, moderate and high skilled swimmers with

high self-efficacy possessed significantly lower motivation (R=.52, p>.001).

Gernigon and Delloye (2003) examined the influence of an unexpected outcome in a first sprint trial on athlete's self-efficacy and performance, and the relation between outcome, causal attribution, self-efficacy, and performance. Sixty-two National level competition sprinters assessed self-efficacy, ran a first 60m trial with manipulated time feedback (success vs. failure), expressed causal attributions, assessed self-efficacy again, and ran a second 60m trial. Success and failure, respectively, increased and decreased self-efficacy. Stability of causes mediated the feedback, self-efficacy relation for males. Personal control predicated self-efficacy for females. Performance was not influenced by feedback but was weakly predicted by self-efficacy. This study sheds light on some of the cognitive and motivational processes that are involved in serial sports events.

Weinberg, Grove and Jackson (1992) investigated to compare Australian Tennis Coaches frequency of use, and perceived effectiveness, of thirteen self-efficacy building strategies to those of American Tennis coaches. Subjects were sixty Australian Tennis coaches, coaching at the club or state level, results indicated that Australian coaches used all thirteen strategies designed to enhance self-

efficacy to a moderate degree and found these technique to be at last moderately affected. The most often used strategies to enhance self-efficacy as well as those strategies found most effective, included encouraging positive self talk, modeling confidence oneself. Using instruction drills using rewarding statement liberally and American coaches, few differences were found. However, the American coaches used more of the following self-efficacy strategies conditioning drills, the modeling of successful players, the emphasis that feelings of anxiety are not fear but are a sign of readiness, and the emphasis that failure results from lack of effort or experience and not from a lack of innate ability. Results are discussed in Tennis of Bandura's self-efficacy theory and Weinberg and Jackson efficacy building strategies used by American coaches.

Zhang, Solmon, Johnson and Gao (2007) examined the relationships among self-efficacy, social support, and physical activity levels. Participant were 193 undergraduate student (111women, 82 men; M age = 21.15years, SD = 3.10) recruited from kinesiology courses at a southeastern university. They completed questionnaires assessing two aspects of self-efficacy: making time and resisting relapse (Sallis et al., 1988), social support from family and friends (Prochaska et al 2002), and self-reported physical activity (IPAQ: Carig et al., 2003). Data were

analyzed using correlation to assess the relationship among the variables and hierarchical regression analyses to predict levels of walking, moderate and vigorous physical activity. Specifically, demographic variable were entered in the first block of the model, followed by social support in the second block and the efficacy variable in the third block. Correlation analyses revealed a pattern of positive correlations among the psychosocial factors. There were also positive association between self-efficacy, both making time and resisting relapse, social support from family and friends, and students' moderate, and vigorous physical activity. Hierarchical regression analyses revealed that self-efficacy for resisting relapse was the only significant predictor for walking (R^2 = 4.3%). For moderate physical activity, family social support, and self-efficacy for resisting relapse were positive predictors, accounting for 2.6%, 4.0%, and 5.0% of the variance respectively. Friends' social support and self-efficacy for resisting relapse were positive predictors for students' vigorous physical activity, accounting for 10.5% and 11.9% of the variance respectively. These findings provide insight into how specific sub-domains of social support and self-efficacy influence physical activity patterns.

In a study Martin's (2002) social cognitive theory was examined taking into account athletes with disabilities. More specifically,

hierarchical and self-regulatory performance self-efficacy, self-regulatory training self-efficacy, outcome confidence, and affect were examined with wheelchair road racers (N=51). In accordance with social cognitive theory, moderate to strong significant relationships among 3 types of self-efficacy and outcome confidence were found (rs = .41- .78). All forms of self-efficacy and positive affect (rs = .39-.56) were also related providing additional support to social cognitive theory and the important relationships among training and performance related efficacy and affect in sport.

The above cited exploration of huge literature available on selected psychological variables reveal that Locus of control, Adjustment and Self-confidence have been the favorite among the sport psychologists for decades. Review of researches have shown that a host of investigators tried to study these variables independently in relation to performance. Most of the studies reported that self-confidence positively influences sports performance. During review of literature a very few study concluded that self-confidence is not related with performance. Wherever no significant relationship has been reported it was due to inadequacy of sample size or due to age variability such as school students. But, it is astonished to find that no sincere effort has so far been made by any researcher to critically examine the effects of locus of control, Adjustment and self-confidence with reference to the

performance of hockey players. Thus, in order to fill void in contemporary research, the present investigator has made a humble effort in this direction by selecting the present empirical investigation.

After scrutinizing the exhausted reviews of the field under interrogation, due care has been taken to incorporate gender differences, game specific differences and such other aspects to present the holistic preview of the conceptual frame work regarding concerned variables of the study. The review will immensely help in designing the research, selection of appropriate tools for measurement and in determining the methods of statistical analyses.

Chapter-3
Methodology

METHODOLOGY

In order to translate into action the objectives that have been stated, the procedure to be adopted, the tools to be used and the sample to be trapped, need to be clearly spelled out. The design and structure of the investigation will then take shape and we must evaluate it critically to see the extent to which it fulfills the set objectives of our investigation.

Scientists endeavor to use observation as a basis for answering questions of interest (Lindzey, 1954; Festinger and katz, 1953; selltizetal, 1964; Underwood, 1957; Stollak and others, 1966; Megargee, 1966; and Shontz, 1965). Edwards (1968) believe that in research we do not haphazardly make observations of any or all kinds but rather our attention is directed towards those observations that "we believe to be relevant to the questions we have previously formulated". In other words we can say that scientists ascertain facts and analyze them in an unbiased manner to draw conclusions. This emphasized that the research should be well planned and must be carried out using sound means and techniques of investigation. Mohsin (1984) opines that, "Research design depicts the plan which states the relation between observed facts and events on the basis of which conclusions could be drawn". Further elaborating Ferguson (1981) has asserted that several

methodological approaches and designs have been developed but the choice of appropriate design ultimately depends upon the special characteristics of the sample, nature of measuring instruments and restrains regarding the manipulations of variables being studied. Thus, the choice of a method is governed by the aims of the study, the variables under investigation and the nature of the data.

It may be recalled that the present work has been designed to investigate the predictability of performance on locus of control, adjustment and self-confidence for north-zone hockey players.

Present chapter is devoted to layout definite plan and procedure of the study. It includes research design, sample, data collection, tools and their administration, and selected statistical procedure.

With this in view the study followed a planned procedure set by investigator under expert advice to draw inferences.

Sample

The present study was conducted on a sample of 300 male subjects recruited from the north-zone intervarsity hockey (men) tournament 2003-04 organized by Aligarh Muslim University to investigate the influence of Performance on the psychological factors i.e. locus of

control, adjustment and self-confidence of hockey players in age group of 18-25 years.

The Aligarh Muslim University was entrusted upon the responsibility to conduct the north-zone Intervarsity (men) hockey tournament 2003-04. Although twenty-five Universities had confirmed their entries, but out of that, only nineteen universities participated in the tournament.

A list of each team, with the help of eligibility proforma submitted by them; was prepared and the players were approached through the managers and coaches of the respective university teams by the investigator for obtaining the responses on locus of control, adjustment and self-confidence scales. The investigator explained the coaches and players about the purpose of the study and assured them that their responses would be kept confidential. A total of 304 players were administered the test inventories, of that only four players did not complete the inventories and hence they were excluded from the ambit of investigation. The details regarding the participating teams have been given hereunder:

List of the participating Universities in North -Zone Intervarsity (Men) Hockey Tournament 2003- 04

Name of the University	Number of Players
C.C.S.U., Meerut	16
Punjabi University, Patiala	16
Punjab University, Chandigarh	16
University of Lucknow	16
Delhi University, Delhi	16
H.N.B. Gharwal University, Srinagar	16
G.N.D.U., Amritsar	16
C.S.J.M. University, Kanpur	16
Allahabad University, Allahabad	16
Kurukshetra University, Kurukshetra	16
M.D.U., Rohtak	16
Dr. R.L.M. University, Faizabad	16
M.J.P. Rohilkhand University, Bareilly	16
H.P. University, Shimla	16
P.A.U., Ludhiana	16
Jammu University, Jammu	16
G.K. University, Haridwar	16
Kumaun University, Nainital	16
A.M.U., Aligarh	16
	304

Tools

Performance Rating Scale

The performance of players was gauged by the application of a performance rating scale developed by Ali (1996). Players were rated by a panel of three experts on a 10 points scale giving minimum one point to a maximum of ten points, ranging from 'poor' to 'excellent'. The components of performance were Skillfulness, Positional play, Tactical ability, Team spirit, Anticipation, Perseverance, General behaviour and Understanding with the team mates.

Locus of Control (IFISC)

Through intensive study of literature of sociology and psychology of sports and on the basis of the experience- oriented observation, a number of factors affecting sports career were identified. Some of these factors were found to be intrinsic while some extrinsic. The locus of control with regard to the intrinsic factors was found to be internal where as that of the extrinsic factors, it was found to be external. Internal factors related to the athlete's own interest seemed to be inherited or acquired qualities through self-motivation while external factors are related to socio-cultural milieu in which the athlete operates.

In all, seven factors viz, superiority in game-skill, practice, ability, financial backing, equipment and coaching, luck and the influence of high-ups, were considered as the most important influencing factors in the sports career of an athlete. The first three factors i.e., superiority in the game skill, practice and ability were termed as internal while financial backing, equipment and coaching, luck and influence of high-ups were regarded as external factors.

The IFISC developed by Kamlesh & Sharma (1986) which has 20 questions veering round internal and external factors was administered for collecting data from the target sample. The factors of internal and external locus of control have been enlisted hereunder:

Internal Factors	**External Factors**
1. Game superiority	1. Financial backing
2. Practice	2. Equipment and Coaching
3. Ability	3. Luck
	4. High-ups

The response-loading was done on the universally accepted Likert Method, according to the strength of feeling as given below:

Strongly Disagree = 0

Disagree = 1

Undecided = 2

Agree = 3

Strongly Agree = 4

In this way, two response scores were obtained- one external factor response ranging from 0 to 40 and the other was internal response also ranging from 0 to 40. The number of questions in each category was limited to 10. Due to the diametrically opposite nature of factors, clubbing of response from the two factors was ruled out.

A trial-run of the inventory was made to ensure the reliability of the inventory and also to establish time-limit so that the respondents gave their feelings without too much brooding. Test-retest reliability of the inventory was established as .65 (Internal .64, External .50) which is moderate. However, the reliability in terms of procedure adopted remains satisfactory. The validity of the questionnaire remains to be axiomatic, the statements were very clearly and candidly pointing to what the test purported to measure. The response sheet was scored in accordance with the response intensity key given at the top of the inventory.

Adjustment Inventory

The scale was developed by Sinha and Singh (1980). It is a popular tool for measuring all the dimensions of adjustment such as home, health, social, emotional, and educational. This inventory contains 102 statements and each statement possesses two alternatives. According to the scoring key high score indicates low level of adjustment and low score refers to high level of adjustment. The test-retest reliability coefficient of the scale was .71.

Self-Confidence Inventory

This popular scale was developed by Basavanna (1971). The inventory consists 100 items, to be answered either true or false. As per the norms the positive items answered negatively and the negative items answered positively were given one point each. Whereas positive items answered positively and the negative items answered negatively received a zero score. This scoring procedure yielded each individual a score that was indicative of his level of self-confidence. The items were keyed in such a way that the lower the score higher was the level of self-confidence and vice versa. The reliability coefficient, as computed by the Sperarman Brown Prophecy Formula, was found to be 0.94. Item validities for all the items were above .90.

The test was administered under proper experimental conditions. Prior to administration of the test, the investigator explained the purpose of the study to the subjects. Name of the test to be used in the study and procedure to be followed in each was also explained to them. Not only this, investigator also demonstrated the procedure for performing each tests.

Data collection

Locus of control, Adjustment and Self-confidence Inventories were administered individually to all the respondents participating in the north-zone hockey intervarsity tournament 2003-04 held at A.M.U., Aligarh. Keeping in view the difficulty of administration of the tests and collection of the desired data individually, the investigator sought the help of a few students of the Department of Physical Education, Aligarh Muslim University. Before administering the tests, these students were made conversant with the purpose of the study, details regarding the test to be used, and the procedure to be followed for recording the responses. The data were collected with the help of the aforementioned standard inventories. After developing rapport with the subjects by casual conversation, at first instance the locus of control scale was administered followed by adjustment and self-confidence

scales and the subjects were asked to give their candid and unbiased response to each and every item of scales accordingly.

Statistical Analysis

Once the relevant information's were obtained, we require methods to describe and summarize data so that the results get interpretable and could be communicated (Mendenhall & Ramey, 1973). Investigations in behavioural sciences classify the nature of a relationship between behaviour and its determinants. In this regard behavioural scientists seek to examine the relationship between various dependent and the relevant independent variable/variables. In our study there was one independent variable (performance) and three dependent variables. We intend to investigate the influence of performance on locus of control, adjustment and self-confidence of intervarsity hockey players. Every variable was dichotomized. For example self-confidence as high and low. The high and low classification was based on Quartile values (Q1) and (Q3). Thus, at the first instance the quartile deviation was computed to find out the high and low performers from the performance rating scale. After that Pearson product moment correlation of coefficient was computed to ascertain the relationship of dependent variables i.e. locus of control, adjustment and self-confidence. Furthermore the correlation of these

dependent variables to independent variable i.e. performance was also determined. Subsequently for analyzing the data only a statistical test that could handle such large information's successfully could be useful. For such purpose 'z' test is considered to be a most appropriate and useful technique. Computation of z ratio is a method for studying the differences among two groups having large sample on variables under study. The results have been presented and discussed in the following chapter- 4:

Chapter-4

Results and Discussion

RESULTS AND DISCUSSION

In previous chapters the investigator has narrated the theoretical framework pertaining to the variables and set the objectives of the present study. Research design, procedure of data collection and its statistical treatment have also been discussed.

The objectives of the scientific endeavour are to design a study, analyze the data, present the findings and discuss them (McGuigan, 1968; Mcnemar, 1962; Edwards 1971; Mendenhall and ramey, 1973; and seigal and Castellan, 1989). The most decisive and challenging task for a researcher is to interpret the results and draw meaningful inferences. Keeping in view the nature of data first of all product moment correlation coefficient was computed to ascertain the correlation among the dependent variables (locus of control, adjustment and self-confidence) and also their relationship with performance (independent variable) of hockey players. Further 'z' statistics was computed to examine the differences among the high and low performance groups of subjects with regard to the various factors/dimensions of locus of control, adjustment and self-confidence. The results have been presented in the following tables:

Table 1: Showing relationship between Locus of Control and Adjustment, Locus of Control and Self-confidence, and Adjustment and Self-confidence

Variables	N	r value	p
Locus of control Vs Adjustment	200	-0.092	>.05
Locus of control Vs Self- confidence	200	-0.094	>.05
Adjustment Vs Self- confidence	200	0.606	<.01

Significant positive relationship was found between adjustment and self-confidence scores ($r=0.606$, $p<.01$). Whereas significant correlations were not found between locus of control and self-confidence ($r=-0.094$, $p>.05$), and locus of control and adjustment scores ($r=-0.092$, $p>.05$) among intervarsity hockey male players.

Table 2: Showing relationship between Locus of Control and Performance, Self-confidence and Performance, and Adjustment and Performance

Variables	N	r value	P
Locus of control Vs Performance	200	.161	<.05
Self confidence Vs Performance	200	-.268	<.01
Adjustment Vs Performance	200	-.184	<.01

It is evident from Table 2 that the significant correlations exist between locus of control and performance (r=.161, p<.05). Whereas significant but negative relationship was found between self-confidence and performance scores (r=-.268, p<.01), and between adjustment and performance (r=-.184, p<.01) scores.

Table 3: Showing relationship of Internal Locus of Control, Game superiority, Practice and Ability with Performance

Variables	N	r value	P
Internal Locus of control Vs Performance	200	.215	<.01
Game superiority Vs Performance	200	.103	>.05
Practice Vs Performance	200	.177	<.05
Ability Vs Performance	200	.263	<.01

As it is evident from the above table that internal locus of control and performance scores (r=.215, p<.01) was found to be statistically significant at the .01 level of significance. On the factors of internal locus of control, the significant correlation exist between practice and performance (r=.177, p<.05) as well as ability and performance (r=.263, p<.01). Significant correlations were not found between game superiority and performance (r=.103, p>.05) among intervarsity hockey players.

Table 4: Showing relationship of External Locus of Control, Financial backing, Equipment/Coaching, Luck and High-Ups with Performance

Variables	N	r value	p
External Locus of control Vs Performance	200	.047	>.05
Financial backing Vs Performance	200	-.007	>.05
Equipment/Coaching Vs Performance	200	.250	<.01
Luck Vs Performance	200	-.005	>.05
High-Ups Vs Performance	200	-.068	>.05

It is evident from the above table that there were no significant correlations exist between external locus of control and performance (r=.047, p>.05), financial backing and performance (r=-.007, p>.05), luck and performance (r=-.005, p>.05), and high-ups (r=-.068, p>.05). But a significant correlation was found between equipment/coaching and performance (r=.250, p<.01).

Table 5: Showing relationship of the dimensions of Adjustment with Performance

Variables	N	r value	P
Home Adjustment Vs Performance	200	-.184	<.01
Health Adjustment Vs Performance	200	-.146	<.05
Social Adjustment Vs Performance	200	-.100	>.05
Emotional Adjustment Vs Performance	200	-.195	<.01
Educational Adjustment Vs Performance	200	-.118	>.05

Out of the five dimensions of adjustment the dimensions of home ($r=-.184$, $p<.01$), health ($r=-.146$, $p<.05$) and emotional ($r=-.195$, $p<.01$) adjustments were found to be significantly correlated with performance among intervarsity hockey players.

Table 6: Showing relationship between Locus of control, Adjustment and Self-confidence with High and Low performance

Subjects	Locus of control	Adjustment	Self confidence
High performance	0.260 *	-0.077	-0.073
Low Performance	-0.271 *	-0.005	-0.026

* Significant at 0.01 level of significance

It is evident from the table 6 that significant positive correlation was found between locus of control and high performance ($r=0.260$), whereas a negative significant correlation was found between locus of control and low performance ($r= -0.271$), at 0.01 level of significance.

Relationship of adjustment and self confidence with high and low performance were not found to be statistically significant.

Table 7: Showing relationship between Locus of control and Adjustment, Locus of control and Self-confidence, and Adjustment and Self-confidence for High and Low Performance

Subjects	Locus of control Vs Adjustment	Locus of control Vs Self -confidence	Adjustment Vs Self -confidence
High Performance	-0.011	0.007	0.623 *
Low Performance	-0.103	-0.094	0.551 *

* Significant at 0.01 level of significance

Results indicate that the significant correlation coefficients existed between adjustment and self-confidence in both the groups of performance. Significant correlation coefficients were not found between the scores of locus of control and adjustment and locus of control and self-confidence in high and low performance groups.

Table 8: Showing relationship between Internal Locus of control and its factors with High and Low performance

Subjects	Game Superiority	Practice	Ability	Overall scores of Internal Locus of Control
High Performance	0.091	0.207**	0.291 *	0.239**
Low Performance	-0.278 *	-0.178	-0.166	-0.223**

* Significant at 0.01 level of significance

** Significant at 0.05 level of significance

The practice (r=0.207, p<.05) and ability (r=0.291, p<.01) factors of internal locus of control (r=0.239, p<.05) were found to be positively correlated with high performance. Whereas negative significant correlation existed between game superiority (r=-0.278, p<.01) and low performance and internal locus of control (r=-0.223, p<.05) with low performance.

Table 9: Showing relationship between External Locus of control and its factors with High and Low performance

Subjects	Financial backing	Equipment /coaching	Luck	High ups	Total score of External Locus of Control
High Performance	0.154	0.213**	0.151	0.068	0.194
Low Performance	-0.109	-0.178	-0.177	-0.236**	-0.225**

** Significant at 0.05 level of significance

Significant positive relationships were found between equipment /coaching and high performance (r = 0.213, p<.05). Significant negative correlations were found between high-ups (r= -0.236, p<.05) and low performance and between the score of external locus of control (r=-0.225, p<.05) and low performance. Whereas insignificant correlations existed between external locus of control and its factors like financial backing (r=.154, p>.05), luck (r=.151, p>.05) and high-ups (r=.068, p>.05)

among high performance group. However significant correlation was observed between financial backing (r= -.109, p>.05), equipment/ coaching (r=-.178, p>.05) and luck factors of external locus of control and low performance group (r=-.177, p>.05).

Table 10: Showing Correlation Coefficients between various dimensions of Adjustment with High and Low Performance

Subjects	Home	Health	Social	Emotional	Educational
High Performance	-0.058	-0.013	0.060	-0.130	-0.128
Low Performance	-0.035	-0.036	0.132	-0.090	0.085

** Significant at 0.5 level of significance

From table-10 it is evident that significant correlations were not found to exist between the various dimensions of adjustment and level of performance.

Table 11: Indicating differences between the Mean Ranks of High and Low performance subjects on the Locus of control, Adjustment and Self-confidence

	Locus of control		Adjustment		Self-confidence	
Subjects	**Mean Rank**	**Z value**	**Mean Rank**	**Z value**	**Mean Rank**	**Z value**
High Performance	113.99		91.39		85.12	
		3.29*		**2.22****		3.76*
Low Performance	87.01		109.61		115.88	

*Significant at 0.1 level of significance

** Significant at 0.5 level of significance

Significant differences existed between the high and low performance subjects on the locus of control ($z=3.29$, $p<.01$), adjustment ($z=2.22$, $p<.05$), and self-confidence ($z=3.76$, $p<.01$).

Table 12: Indicating differences between the Mean Ranks of High and Low performance subjects on the Internal Locus of control, Games superiority, Practice and Ability

Subjects	Internal Locus of Control		Games superiority		Practice		Ability	
	Mean Rank	Z value	Mean Rank	Z value	Mean Rank	Z value	Mean Rank	Z value
High Performance	114.34	3.38*	109.70	2.27**	111.72	2.76*	115.58	3.70*
Low Performance	86.66		91.30		89.28		85.42	

*Significant at 0.1 level of significance

** Significant at 0.5 level of significance

High performance subjects mean rank as compared to low performance subjects mean rank were found to be higher on internal locus of control ($z=3.38$, $p<.01$), game superiority ($z=2.27$, $p<.05$), practice ($z=2.76$, $p<.01$) and ability ($z=3.70$, $p<.01$) factors of internal locus of control.

Table 13: Indicating differences between the Mean Ranks of High and Low performance subjects on the External Locus of control, Financial backing, Equipment/Coaching, Luck and High-Ups

	External Locus of control		Financial backing		Equipment/coaching		Luck		High -Ups	
Subjects	Mean Rank	Z value	Mean Rank	Z value	Mean Rank	Z value	Mean Rank	Z value	Mean Rank	Z value
High Performance	104.44		97.32		116.29		100.16		98.56	
		0.96		7.86*		3.89*		0.08		0.47
Low Performance	96.56		103.68		84.71		100.84		102.44	

*Significant at 0.1 level of significance

Significant differences existed between the mean ranks of high and low performance subjects on the financial backing and equipment/coaching dimension of external locus of control. Significant differences were not found between the mean ranks of high and low performance subjects on overall scores obtained on external locus of control and luck and high-ups factors of external locus of control.

Table 14: Indicating differences between the Mean Ranks of High and Low performance subjects on the different dimensions of Adjustment

	Home		Health		Social		Emotional		Educational	
Subjects	Mean Rank	Z value	Mean Rank	Z value	Mean Rank	Z value	Mean Rank	Z value	Mean Rank	Z value
High Performance	89.74		92.74		94.20		92.34		94.66	
		2.64*		1.90		1.55		1.99**		1.43
Low Performance	111.26		108.26		106.80		108.66		106.34	

*Significant at 0.1 level of significance

** Significant at 0.5 level of significance

The mean rank scores of low performance subjects was found to be significantly higher than the mean rank score of high performance subjects on the home ($z=2.64$, $p<.01$) and emotional ($z=1.99$, $p<.05$) dimensions of adjustment. Whereas on the remaining dimensions of adjustment significant differences did not exist.

DISCUSSION

The positive correlation between adjustment and self-confidence was found to be significant in north-zone hockey players. This indicates that the player having better adjustment shows higher self-confidence. Whereas the relationship between locus of control and adjustment and locus of control and self-confidence were found to be nonsignificant which imply that the dimensions of locus of control were not influenced

by the level of adjustment and self-confidence in north-zone hockey players.

Negative significant correlation exists between self-confidence and performance as well as adjustment and performance. The negative sign is due to the nature of scoring on self-confidence and adjustment scales where low obtained score reflects higher confidence and adjustment. This finding suggests that the hockey players who perform better have greater confidence and higher adjustment than the players who show poor confidence and were maladjusted. Ali (1996) has reported that self-confidence and adjustment was the predictor of high performance. He argued that those who possess self-confidence may face situations with courage and would display the capacity to accept challenges. Hockey is a team game which demands that the players should have the confidence to rely on their skills and experience to face the fast changing situations that they have to encounter during the play. Self-confidence of a player may inspire his team mates to do well during the matches. He also explained that adjustment has also been found a predictor of high performance. One should have healthy outlook towards one's health as well as balanced emotionally for giving good performance in games and sports. The finding of the present study can be supported by this assumption. Further, locus of control was also found to be significantly related to performance. The finding of

the study corroborated with the findings of Kuthri (1988), that the athlete's performances (as measured by improvement of personal, competitive and contextual performance) were significantly correlated with their locus of control. The finding suggests that the players rely on various factors of locus of control for better performance.

The internal locus of control and its factors i.e. practice and ability showed the significant positive correlation with performance. This finding can be corroborated by the Nigam's (2001) finding that advocates -- One's playing ability, is the most important internal factor influencing individual's cricketing career/performance. Whereas Ghuman and Dhillon (2000) and Bhadana, Rathore & Jakhar (2001) in their empirical investigation found that practice factor of internal locus of control significantly correlates as well as differed to performance for two different groups/sports.

The correlation between equipment/coaching with performance was found to be significant which implies that intervarsity players believe that equipment/coaching plays an important role for achieving peak performance. The findings of Rathore and Jakhar (2001) and Nigam (2001) studies have also reported the same. Whereas external locus of control and its dimensions i.e. financial backing, luck, high-ups failed to show the significant relationship with performance.

Home, health and emotional adjustment were found to be significantly correlated negatively with performance. From the results it can be inferred that those varsity hockey players who perform better are supported by their family members, cognizant about their health and emotionally well adjusted. It is a well established fact that the emotional stability is one of the important personality trait of elite athletes. The finding of the present study can be corroborated by the findings of earlier studies (Ali, 1996; Panda & Biswas, 1989; Mann, 1988; Rani, 1974).

A significant positive correlation was found between locus of control and high performance group, which implies that different dimensions of locus of control correlates with high performers or we can say that high performers show their compatibility with locus of control. However, a negative significant correlation was found between locus of control and low performance. Kuthri (1988) also reported that athletes' (high and low) performances were found to be significantly correlated with locus of control. There were significant correlations exist between adjustment and self-confidence with both high and low performers. This emphasizes that better adjustment develops greater confidence in hockey players. The higher correlation coefficient in high performers than the low performers implies that they had better adjustment and self-confidence than the latter.

There was a significant positive correlation between internal locus of control and high performance, and a negative significant correlation between internal locus of control and low performance. This suggests that high performers rely more on internality whereas low performers relying less dependency on internality. There was positive relationship exists between the factors of internal locus of control (practice and ability) for high performance subjects. It means that hockey players believed that the higher performance can only be cultivated through hard practice and ability to perform their skills, techniques, tactics along with their top level fitness throughout the competition. Whereas the negative significant correlation exists between game superiority and low performance, which implies that low performers assessed game superiority as an important instrument for achieving better performances. Again findings of the study corroborated with the findings of Kuthri (1988) that athletes' (high and low) performances were found to be significantly correlated with the factors of locus of control.

The external locus of control was found to be negatively correlated with low performance subjects. Equipment/coaching factor of external locus of control was found to be positively correlated with high performance which implies that high performance influence/brings the quality of coaching and adequacy of equipment

for north zone hockey players. Whereas there was a negative significant correlation exists between high-ups and low performance subjects for external factors of locus of control. This implies that low performance subjects are showing their reliance on high-ups for achieving better performances.

The Pearson correlations were not found to be significant between the various dimensions of adjustment and high and low performance. Hockey players who have better home, emotional and educational adjustment are high performers. Whereas hockey players who have better health and social adjustment are low performers.

Significant difference existed between the mean ranks of hockey players of high and low performance on locus of control. This finding is in conformity with the findings of previous studies (Ghuman & Dhillon, 2000; and kuthri, 1988), who pointed out that the players of teams which attained the positions in the tournament showed higher scores on locus of control. High and low performers differed significantly with respect to adjustment. Ali (1996) suggested that hockey players of high performance were well adjusted. Significant difference existed between the mean ranks of high and low performers on self-confidence. This finding can also be supported by Ghuman and Dhillon (2000) who reported that team players those secures first three positions in the tournament showed higher self-confidence than the team players who

failed to achieve the position. From the above discussion we can conclude that high locus of control, adjustment and self-confidence are the potent determinants of high performance for intervarsity hockey players.

The higher mean rank value of high performers than low performers signifies that they depend more on internality. Ghuman and Dhillon (2000) and Nigam (2001) also found that the intervarsity level male cricket players differed significantly on internal locus of control. Significant differences also existed between high and low performers on game superiority. Showing their greater sense of game superiority, belief in practice and ability helps in attaining higher level of performances. The results of the present investigation can also be corroborated with the findings of Ghuman and Dhillon (2000). They found that high performance group showed higher scores on all the internal control factors i.e. game superiority, practice and ability than the low performance group.

High and low performers differed significantly on financial backing and equipment/coaching dimensions of external locus of control. Results indicate that hockey players of high performance group with lower mean rank value (97.32) than low performance group of higher mean rank (103.68) do not consider financial backing as the key resource of high performance rather they considered that quality

equipment and coaching are much desired for achieving higher performances. As far as financial backing is concerned, the present finding can be corroborated with the findings of Ghuman and Dhillon (2000). They also found that financial backing helps only those participating teams' players who did not obtain positions. Whereas for equipment/coaching, the result is contradictory with the findings of Ghuman and Dhillon (2000). Nigam (2001) found that equipment/coaching was the most important external factor influencing individual's cricketing career as perceived by intervarsity level male cricket players.

High and low performers differed significantly on dimensions of adjustment: home and emotional. Results indicate that for achieving higher level of performance the players should be strongly supported and promoted by their guardians and family members as well as at the personal level they are supposed to be optimally aroused, and maintain patience throughout the game for giving personal best performance in competitions. The present finding did not match the findings of previous studies (Ali, 1996; Bala, 1994; and Kaur, 1992) who claimed that there was no significant difference between two groups on home adjustment. Rani (1974) mentioned that non-athletes' tended to have better home adjustment than athletes. As far as emotional adjustment is concerned, the present finding can be well supported by the findings of

Ali (1996), Bala (1994), Panda & Biswas (1989) who reported that players with high achievements were found to be emotionally well adjusted. The finding of Ali (1996) suggests that emotionally stable and mature players tend to succeed in maintaining calmness even under most competitive and challenging situations. In a state of provocation one may not maintain his patience and in all probability one is liable to forget his game plan or may violate the rules and regulations. As a result other members of his team may be demoralized and it may also elicit adverse audience reactions. Thus, it is quite legitimate to infer that emotional adjustment should be considered as an important component of good performance.

Chapter-5

Conclusions, Suggestions and Recommendations

CONCLUSIONS, SUGGESTIONS AND RECOMMENDATIONS

Conclusions

Based on the analytical inferences drawn in the previous chapter, we can conclude that:

1. There exists a significant relation between adjustment and self-confidence.
2. Locus of control was not significantly related to adjustment and self-confidence if its effect is taken separately.
3. Though locus of control and adjustment and locus of control and self- confidence did not show a significant relation, but locus of control and self-confidence showed greater strength of relation than locus of control and adjustment.
4. There was a significant relation between locus of control and performance.
5. Adjustment and self-confidence were also significantly related to performance if their effects were taken separately.
6. There appeared a significant relation between internal locus of control and performance.
7. There was a significant relation depicted between practice and performance.
8. As observed, ability was positively related to performance.

9. Game superiority was not significantly related to performance.
10. There was a significant relation observed between equipment /coaching and performance.
11. External locus of control, financial backing, luck and high-ups were not significantly related to performance.
12. There was a significant relation emerged between home adjustment and performance.
13. Health and emotional adjustment were also significantly related to performance.
14. Social and Educational adjustment were not significantly related to performance.
15. There was a significant relation appeared between locus of control and high performance group. Whereas low performance group negatively related to locus of control.
16. A adjustment and self-confidence were not significantly related to performance for both high and low performers.
17. A significant relation between adjustment and self-confidence for both high and low performance groups was observed.
18. Further, locus of control was not significantly related to adjustment and self-confidence both for high and low performance groups.

19. There was a negative but significant relation exists regarding game superiority for low performers, whereas high performers showed an insignificant relation with game superiority.
20. A significant relation emerged between practice and performance for high performers.
21. A significant relation was observed between ability and performance for high performance group.
22. A significant relation was witnessed between internal locus of control and performance for high performers, where as low performers displayed a negatively significant relation with performance.
23. Low performers demonstrated a negative and significant relation with external locus of control.
24. Equipment/coaching were witnessed significantly related to high performers. Whereas low performers showed an insignificant relationship.
25. Low performance group reflected a negative but significant relation for high-ups. Whereas there was an insignificant relation emerged between high-ups and high performance group.
26. Both high and low performance groups failed to display significant relations for financial backing and luck factors of external locus of control.

27. There was no significant relation showed on home, health, social, emotional and educational adjustment by high and low performers.
28. There reported a significant difference between high and low performers on locus of control.
29. High and low performers further differed significantly in terms of internal locus of control.
30. Regarding factors of internal locus of control, high performers differed significantly on all the factors such as game superiority, practice and ability in respect to low performers.
31. For external locus of control there found an insignificant difference between high and low performers.
32. There was a significant difference between high and low performers for factors of external locus of control i.e. financial backing and equipment/coaching. However, for rest of the factors i.e. luck and high-ups, the difference was not significant.
33. High and low performance hockey players significantly differed on adjustment.
34. High and low performance groups differed significantly only for home and emotional adjustment. Whereas for rest of the dimensions i.e. health, social and educational adjustment, the difference was insignificant.

35. A significant difference was also observed between high and low performance groups on self-confidence.

Suggestions

Though the findings of present investigation are significant in many ways, but it has certain limitations also. Keeping these in view, following suggestions are being put forward for future research:

1. Since the sample of the study was confined to the university hockey players only, it may be suggested that for greater reliability the sample may be broaden considering the players of other Group or Individual sport disciplines.
2. A comparative study may be conducted on East, West and South-Zone intervarsity players to find out whether due to socio-cultural and politico-geographical changes the populations varies with respect to these variables.
3. Performance is a continuous process, it is suggested that sport performance should be more extensively and intensively perused at various level.
4. Some other variables such as Leadership, Team-spirit and mental toughness etc. should also be introduced to determine their influence on performance.

5. Longitudinal studies should be undertaken in different disciplines of games and sport to enhance performance of the players in the country.
6. It is suggested that some physiological dimensions must be collaborated along with these psychological variables to predict performance in different games and sport in future studies.
7. In future a series of studies need to be conducted considering the important psychological variables and their relationship with performance.
8. The study may be replicated on different domain of sport such as Professional, Adventurous, Recreational and most importantly Indigenous sport.

Recommendations

Considering the inferences drawn from the present empirical investigation, the following recommendations may be forwarded:

1. It is recommended that sex differences in performance of players of various age groups should also be determined in future studies.
2. Most importantly this type of study may be repeated on veterans as well as athletes belonging to special population at various levels.

3. It is recommended to consider more specific dimensions of these variables such as health locus of control, collective self-efficacy etc for future research.
4. Future research must be expanded beyond an analysis of highly competitive sport.

Considering the above mentioned recommendations it may be forwarded that as single individual researcher may not be able to undertake such studies independently, hence premier institutions such as SAI, Sports Federations, Corporate houses and Sports Academies should take initiative to undertake long term research projects to determine the predictors of sport performance instead of merely stressing on any one or a few constructs of performance and for that a holistic approach by the researchers of vivid sports sciences must be adopted.

References

REFERENCES

Adler, A. (1930). Practice and theory of individual psychology.

Agnihotri, Rekha. (1987). Manual for Aguithotri's Self-confidence inventory (ASCI) National Psychological corporation, U/230 Kacheri Ghat, Agra. India.

Alam, K. (1988). An Experimental Study of Superficial and Semantic organization and in Immediate and Delayed Cued Recall in Relation to Locus of control and Cognitive Rigidity. Unpublished Doctoral Thesis, Deptt. Of Psychology, A.M.U., Aligarh.

Alderman, R. B. (1974). Psychological behaviour in sports. Philadelphia, W.B. Saunders.

Alegaonkar, P. M. (1989). A study of self-concept, emotional, social, educational adjustment and physical fitness. Singapore: proceedings of the world sports psychology Conference, 45,46.

Ali, J. (1996). Study of Self-Concept, Body Image, Adjustment and Performance of Hockey players. Unpublished doctoral thesis, department of Physical Health and Sports Education, A.M.U., Aligarh.

Allport, G. W. (1937). Personality : A psychological interpretation. New York: Holt, Rinehart and Winston.

Anders, R. & Elizabeth (1999). Field Hockey-Steps to success. Human kinetics.

Antonelli, F.& Mascellani, A. (1973). A psychological research on Bell's Adjustment Test. International Journal of sports Psychology, 4(2), 61-62.

Antony. C., Varghese and Yadav, R. K., (2006). Locus of control-study of Indian Volleyball players. Indian Journal of Sports Studies. Vol. 6, No.2

Arkoff, A. (1968). Adjustment and mental health, McGraw-Hill, New York.

Aron & Elaine, N. Aron, (1994). Statistics for psychology. Prentice-Hall, Inc. New Jersey.

Babu, K. D. S. (1981). Hockey comes to India: Rise-climax-downfall. Sports Annual, Hockey number. Lucknow: K.D. Sing Babu memorial society.

Bala, R. (1994). Anxiety, self-concept and adjustment as related to performance of volleyball players. Unpublished Doctoral Thesis, Chandigarh: Panjab University.

Baltes, M. M., & Baltes, P. B. (1986). The psychology of control and aging. Hillsdale, NJ: Erlbaum.

Bandura A. and Cervone D., (1983). Self-Efficacy mechanism governing the motivational effects of good system. Journal of Personality and Social Psychology.

Bandura, A. (1971). Social learning theory. Morriston, N.J. : General Learning Press.

Bandura, A. (1977a). Self-efficacy: Toward a unifying theory of behavioural change. Psychological Review, 84. 191-215

Bandura, A., (1982). Self- Efficacy, Mechanism in Human Agency, American psychologist, 7: 122-147.

Bandura, A., (1986). Social foundation of thought and action: A social cognitive theory. Englewood, cliffs, NJ: Prentice Hall.

Bandura, A., (1986). Social Foundation of Thoughts and Action. Englewood Cliffs, N.J. Prentice Hall.

Bandura, A., (1997). self-efficacy: The exercise of control. New York: Freeman and Co.

Bandura, A., and Jourdan, F. J., (1991). Self Regulatory Mechanisms governing the impact of social comparison on complex decision making. Journal of Personality and social psychology. 60: 941-951.

Baron, R. M., & Kenny, D. A. (1986). The moderator- mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 6, 1173-1182.

Basavanna, M., (1971). A study of self-confidence as an attitude of self-concept. Unpublished Doctoral Dissertation, 1971, Shri Venkateswara University, Tirupati.

Basavanna, M., (1975). Manual for the self confidence Inventory, Varanasi, Rupa Psychological Centre.

Bell H.M., (1961). Manual for the Adjustment Inventory: California consulting Psychologists, Press Inc.

Bell, H.M. (1962). Bell Adjustment Inventory Mannual. Pao Atto: Consulting Psychologists Press.

Bell, K. F. (1983). Championship thinking: The athletic guide to winning performance in all sports. Englewood Cliffs, NJ: Prentice Hall, Inc.

Bernard, weiner. (1977). Discovering Psychology by Bernard Weiner. Text Book. Buford, GA, United States.

Bezinovic, P. & Savcic. D., (1989). Lokus kontrole in jegovo mjerenje: prikaz nove skaleza

Bhadana, O. P., Rathore, S. B. and Jakhar, S. R. (2001). An investigation of factors influencing sports career and adjustment of Sportsmen and Boxers of Rajasthan state. Journal of Sports and Sports Sciences, Vol. 24 (2) : 41-47.

Bhatt, G.P. (1961). An experimental study of the achievements in basic education. Doctoral Thesis in education, Baroda: M.S.U.

Bhatti, A.S. (1987). Psychological and anthropometric differentials of athletes and non-athletes. Unpublished Doctoral Thesis, Kurushetra: Kurushetra University.

Biddulph, L. (1954). Athletic achievement and personal and social adjustment of high school boys. Research Quarterly, 25, 1-7.

Bleak, J. L., & Frederick, C. M. (1998). Superstitious behavior in sport: Levels of effectiveness and determinants of use in three collegiate sports. Journal of Sport Behavior, 21, 1-15.

Bond, K. A., Biddle, S.J.H., & Ntoumanis, N. (2001). Self-efficacy and causal attribution in female golfers. International Journal of Sport Psychology, 31, 243-256.

Boscow, J. (1972). The physical and personality characteristics of champion male gymnasts. Coaching athletics and psychology. New York : McGraw Hill.

Boykin, L.L. (1957). The adjustment of 2078 Negro students. Journal of Negro Education. 26, 75-79.

Brar, J.S. (1973). The adjustment problems faced by the higher secondary school students. Journal of Education Research and Education, 9(4), 202- 208.

Bray, S. R., (2007). Self- Efficacy for Coping With Barriers Helps Students Stay Physically Active During Transition to Their First Year at a University. Research Quarterly for Exercise and Sport. Vol. 78, No. 1, pp. 61-70.

Bright S., G. A. Jagat, C.L. Pround Food., (1980). The principles of games and sports with illustrations. (7th Universal Publication, New Delhi) P-21.

Browfein, J. J. (1952). Stability of self- conception as a dimension of personality. Journal of Abnormal and Social Psychology, 47, 597-606.

Buck, M. M. (1971). Job satisfaction and adjustment of coaches of chandigarh. Unpublished M.A. Dissertation, Chandigarth: Punjab University.

Buhrmann, H. G., Brown B., & Zaugg, M. K. (1982). Superstitious beliefs and behavior: A comparison of male and female basketball players. Journal of Sport Behavior, 5, 75-185.

Burke. L. K., Daniel R. Czech, Jennifer L. Knight, Lisa A. Scott, A. Barry Joyner, Steven G. Benton, and H. Keith Roughton

(2005). An Exploratory Investigation of Superstition, Personal control, Optimism and Pessimism in NCAA Division I Intercollegiate Student- Athletes. East Tennessee State University & Georgia Southern University.

Chadha, N. K. & Chandra, S. (1985). A comparative study of the adolescent boys and girls in relation to their attitudes towards school adjustment and scholastic achievement. The Indian Journal of Community Guidence Service, 2 (3).

Chase, A., Lirgg, D. and Feltz D. L. (1997). Do Coaches' Efficacy Expectations for their teams predict team performance? The Sport Psychologist, 11: 8-23.

Chase, M. A. (2001). Childern's self-efficacy, Motivational intentions, and attributions in physical education and sport. Research quarterly for Exercise and Sport, 72, 47-54.

Chelladurai, P. (2006). Human Resource Management in Sport and Recreation. Human Kinitics p.74-75.

Clinton, Robert T., and Gill, Diane.L., (1994). Gender Difference in Self-Confidence on a Feminine-Type Tasks. Journal of Sport and Exercise Psychology 16: 150.

Coakey, J. (1994). Sport in society: Issues and controversies (4th ed.) St. Louis: Times Mirror/Mosby College.

Code, S., and Lagan-Fox, J. (2001). Motivation, cognition, and traits: predicting occupational health, well-being, and performance. Stress and Health, 17, 159-74.

Coleman, J. C. (1960). Personality dynamics and effective behaviour. Chicago: Scott, Foreman & Comft.

Collen, J. Haney., Bonita, C. Long., (1995). Coping Effectiveness: A Path Analysis of Self-Efficacy, Control, Coping, and Performance in Sport Competitions. Journal of Applied Social Psychology 25 (19) , 1726-1746.

Cooper, L. (1969). Athletics activity and personality. Research Quarterly. Sanfrancisco, W.H. Freeman.

Cox, R. H., Mavens, M.P., & Russell, W.D. (2003). Measuring anxiety in athletics: The revised Competitive State Anxiety Inventory 2. Journal of Sport and Exercise Psychology, 25, 519-533.

Crandall, V. C., (1965). Children's belief in their own control of reinforcement in intellectual academic achievement situations. Child development.

Cronbach, L. J. (1960). Essentials of psychological testing. New York: Harper & brothers.

DeMellow, M. (1980). The story of the Olympics. 3rd ed. India: National Bank Trust.

Deutsch, M. (1960). Minority group and class status as related to social and personality factors in scholastic achievement. New York: Society for applied anthropology.

Donahue, E. M. et al (1994). The devided self: Concurrent and longitudinal effects of psychological adjustment and social roes on self-concept differentiation. Journal of personality and social psychology, 64 (5), 834-846.

Duda, J. L. and White, Sally A., (1989). "Relationship between Task and Ego Orientation and the Perceived Purpose of Sports

Among High School Atheletes". Journal of Sport and Exercise Psychology, 320.

Duda, J. L. and White, Sally, A., (1994). "The Relationship of Gender, Level of Sports Involvement and Participation Motivation to Task and Ego Orientation". International Journal of Sport Psychology 25: 4.

Dzewaltowski, D. A. (1994). Physical activity determinants: A social cognitive approach. Medicine and Science in Sports and Exercise, 26, 1395-1399.

Edwards, A. L. (1968). Experimental design in psychological research, 3rd ed. New York: Holt, Rinehart & Winston.

Erikson, E. (1963). Childhood and society, London.

Escartf, A., & Guzman, J. F. (1999). Effects of feedback on self-efficacy, performance, and choice in an athletic task. Journal of Applied Sport Psychology, 11, 83-96.

Ewen, B. Robert. (1998). Personality, A Tropical Approach: Theories, Research, Major Controversies, And Emerging Findings. Lawrence Erlbaum Associates.

Feltz, D. L. (1982). Path analysis of the causal elements in Bandura's theory of self-efficacy and an anxiety-based model of avoidance behavior. Journal of Personality and Social Psychology, 42, 64-781.

Feltz, D. L. (1988). Self-confidence and sports performance, K. B. P. Pandolf (ed.), Exercise and sport sciences reviews (pp. 423-457). New York: MacMillan.

Feltz, D. L. and D. M. Landers (1983). "The Effects of Mental Practice on Motor Skill Learning and Performance - a Meta-Analysis." Journal of Sport Psychology 5(1): 25-57.

Feltz, D. L., & Bandura, A. (1989). Individual and team confidence in hockey: Final report. USOC Sports Science NGB Grants Program.

Feltz, D. L., & Lirgg, C.D. (1998). Perceived team and player efficacy in hockey. Journal of Applied Psychology, 83, 557-564.

Feltz, D. L., & Lirgg, C.D. (2001). Self-efficacy beliefs of athletes, teams, and coaches, R. N. Singer, H. A. Hausenblas, & C.M. Janelle (ed.). Handbook of sport psychology (2nd ed., pp. 340-361). New York: Wiley.

Feltz, D., & Chase, M. (1998). The measurement of self-efficacy and confidence in sport. J. L. Duda (ed.). Advances in sport and exercise psychology measurement (pp.65-80). Morgantown, WV: Fitness Information Technology.

Fennema, E., and Peterson, P. (1985). Autonomous learning behaviour: A possible explanation of gender related differences in mathematics, L. Wilkinson and C. Marret (ed.), Gender influences in classroom interaction (pp. 17-35). Orlando, FL: Academic press.

Ferguson, G. A. (1981). Statistical analysis in psychology and education. New York: McGraw Hill Co.

Festinger, L. & Katz, D. (1953). Research methods in behavioural Sciences. New York: Dryden.

Finn, John. A., and Straub, William F. (1977). Locus of control Among Dutch and America Women Softball players Research Quarterly 48: 57.

Fitzsimmons, P. A., Landers, D. M., Thomas, J. R., & van der Mars, H. (1991). Does self-efficacy predict performance in experienced weightlifters? Research quarterly for Exercise and Sport, 62, 424-431.

Frankle, V. E. (1969). The doctor and the soul. New York: Bontom Books.

Freischlag, Jerry. (1976). Locus of control, its Antecedents and Sports Participation. Abstracts of Research Paper: 2.

Freud, S. (1933). New introductory lectures on psychoanalysis. New York. Norton.

Fromm, E. (1941). Escape and freedom. New You: Holt, Rinehart & Winston.

Frost, R. D. (1970). Psychological concepts applied to physical education and coaching. Massachusetts:Addison-Wesley. S.

Gadsdon, Sally. (2001). Psychology and Sport. Heinemann.

Gangopadhyay, S. R. (2002). Sports Psychology. College book depot, Gwalior.

Gayton, W. F., Matthews, G. R., & Borchstead, G.N. (1986). An investigation of the validity of the physical self-efficacy scale in predicting marathon performance. Perceptual and Motor Skills, 63, 752-754.

Geir, Jordet., Marije, T. Elferink- Gemser, Koen, A.P.M. Lemmink and Chris Visscher, (2006). The "Russian Roulette" of Soccer?

Perceived Control and anxiety in a major tournament penalty shootout. International Journal of Sport Psychology. 37:281-298.

Gernigon, Christophe and Delloye, Jean-Baptiste (2003). Self-Efficacy, Causal Attribution, and Track Athletic Performance Following Unexpected Success or Failure Among Elite Sprinters. The Sport Psychologist, Human Kinetics Publishers, Inc. 17, 55-76.

Ghorpade, M. B. (1978). The extent of maladjustment among the Bombay University Students. Bombay Psychologist, 1(1), 60-62.

Ghuman, P. S. and Dhillon, B. S. (2000). A study of factors influencing sports career. Scientific Journal, Vol. (1) : 32-36.

Ghuman, P. S. and Dhillon, B. S. (2000). Self-Confidence and Will to Win. Scientific Journal, Vol. 23 (4): 15-20.

Gill, D. L., Decter, T.E. (1988). Development of the Sport Orientation questionnaire. Research. Quarterly, 59(3) 191-202.

Gill, D. L., Kelly, B.C., Williams, K., & Martin,J.J., (1994). The relationship of self-efficacy and perceived well-being to physical activity and stair climbing in older adults. Research quarterly for Exercise and Sport, 65,367-371.

Glanz, E.C.& Welston, E.B. (1958). An introduction to personal adjustment.

Gordon, J. E. (1963). Personality and behaviour. Newyork: McMillan.

Gould, D., & Weiss, M. (1981). The effects of model similarity and model talk on self-efficacy and muscular endurance. Journal of Sport Psychology, 3, 17-29.

Gould, D., Greenleaf, C., Lauer, L., & Chung, Y. (1999). Lessons learned from Nagano. Olympic Coach, 9, 2-5.

Gould, D., Guinan, D., Greenleaf, C., Medbery, R., Strickland, M., Lauer, L., Yongchul, C., & Peterson, K. (1998). Positive and negative factors influencing U.S. Olympic athletes and coaches: Atlanta Games assessment: Final report. USOC Sports Science and Technology Grant Project.

Gould, D., Weiss, M. R., & Weinberg, R.S. (1981). Psychological characteristics of successful and non-successful Big Ten wrestlers. Journal of Sport Psychology, 3, 69-81.

Gregory, J. C., & Petrie, B. M. (1975). Superstitions of Canadian intercollegiate athletes: An inter-sport comparison. International Review of Sport Sociology, 10, 59-68.

Grewal, C.S. (1986). A study of physical fitness attitude towards physical activity and adjustment among university students across socio-economic levels. Unpublished Doctoral thesis, Chandigarh Punjab University.

Hans, T. (2000). A meta-analysis of the effects of adventure programming on locus of control. Journal of Contemporary Psychotherapy, 30(1),33-60.

Hardy, L., Jones, G., & Gould, D. (1996). Understanding psychological preparation for sport: Theory and practice of elite performers. Chichester, England: John Wiley & Sons.

Harre, D., (1986). Trainings lehrc. Sportverlag, Berlin.

Hattie, J. A., Marsh, H. W., Neill, J. T. & Richards, G. E. (1997). Adventure Education and Outward Bound: Out-of-class experiences that have a lasting effect.. Review of Educational Research, 67, 43-87.

Hendricks, R. (1988). Wills book of excellence Hockey. Orient Longman Ltd. Faridabad; Thomson Press (India) Ltd.

Highlen. P. S., & Bennett, B.B. (1979). Psychological characteristics of successful and unsuccessful elite wrestles: An exploratory study. Journal of Sport Psychology, 1, 123-137.

Horney, K. (1937). The neurotic Personality of our time. London: Routledge & Kegan Paul.

Howitt & Cramer. (1997). An introduction to statistics in psychology. Prentice-Hall/Harvester Wheatsheaf, Hertfordshire.

Hussain, S. (1985). Adjustment and its measurement. New-Delhi: S. Chand & Co.

John, P. J., Reid, J. B. & King, F. J. (1959) Adolescents racial and ethnic differences in social attitudes and adjustment. Psychological Reports, 5, 549-552.

Jones, G., & Hardy, L. (1990). Stress in sport: Experiences of some elite performers. In G. Jones & Hardy (Eds.), Stress and performance in sport (pp. 247-277).

Jones, J. G., Swain, A., & Cale, A. (1992). Antecedents of multidimensional competitive state anxiety and self-confidence in elite intercollegiate middle-distance runners. The Sport Psychologist, 4, 107-188.

Jones. G., Swain, A.B.J. (1992). Intensity and direction dimensions of competitive state anxiety and relationships with competitiveness. Perceptual and Motor Skills, 74, 467-472.

Kamlesh, M. L. and Sharma T.R. (1986). Inventory of factor influencing sports career. National Psychological corporation- Agra. India.

Kamlesh, M. L., (1989). Internal and External Factors Affecting Sports Career. Indian Journal of Sports Science 1, 1: 59.

Kane, J. E. (1968). Personality in relation to physical abilities and physique. Unpublished Doctoral Thesis. London University.

Kane, T. D., Marks, M. A., Zaccaro, S. J. and Blair, V. (1996). Self-efficacy, personal goals and Wrestler's Self- regulation. Journal of Sport and Exercise Psychology.18(1) : 36-48.

Kaplan, L. (1965). Foundation of human behaviour. New York : Harper & Row.

Kapur., (1968). Romance of hockey Kapur Publication Ambala, P.7.

Kasl, S. V. (1989). An epidemiological perspective on the role of control in health. In S.L. Sauter, J. J. Hurrell, & C. L. Copper (Ed.), Job control and worker health (pp..161-189). Chichester: Wiley.

Kasl., (1989). Personality Traits. Published by Cambridge University Press, 2003.

Kaur, N. (1992). Team Cohesion, adjustment and achievement motivation as related to performance and gender in team

sports. Unpublished Doctoral Thesis. Chandigarh ; Punjab University.

Kenow, L.J., & Williams, J.M. (1992). Relationship between anxiety, self-confidence, and evaluation of coaching behaviors. Sport Psychologist, 6(4), 344-357.

Kingston, K.M., & Hardy, L. (1997). Effects of different types of goals on processes that support performance. The Sport Psychologist, 11, 277-293.

Koening, F.B (1969). Comparative analysis of selected personal and social background characteristics of high school girls at three levels of participation in basketball Dissertation Abstract Abstracts International, 30, 2732.

Kumar, A. and Shrivatav, S. N. (1983). Manual of the hindi adaptation of the Rotter's Locus of control scale. Manovaigyanik Parkashan Sansthan, Varansi.

Kumar, A., Pathak. N. and Thakur, G. P. (1977). Death Anxiety and Locus of control in individual, team and non-athletes. International Journal of Psychology 52.

Kumar, D.R., and Shukla, P.S., (1988). Manual for Indian adaptation of 'will to win' questionnaire, kumar Publication. Co., 4/148, Kalimahal Varanasi, India.

Kumar, P. (1975). Revised Adjustment Inventory (RAI). National Psychological Corporation, Agra, India.

Kumari, A. (1988). A comparative study of self-concept, adjustment and creative thinking of sports and non-sport school girls

of Himachal pradesh. Unpublished Doctoral Thesis, Chandigarh: Punjab University.

Kuthri, Sabri., (1988). Self-Concept, Locus of control and Level of Aspiration Related to the Performance of Elite Athletes. Dissertation Abstracts International 48, 8: 2016.

Kutty, S. k. (2006). Foundations of Sports & Exercise Psychology. Sports Publication, New Delhi.

Landau, C. (1957) International group work and social adjustment. Dissertation Adstracts International, 17(9).

Landers, D.M. (1983). Whatever happened to theory testing in sport psychology? Journal of Sport Psychology, 5, 135-151.

Lawrence, A. Permin & Oliver, P.John (1999). Hand book of Personality: Theory and Research. Guilford Press.

Lazarus, R. S. (1961). Adjustment and personality, New York: McGraw Hill, Inc.

Lazarus, R. S. (1976). Patterns of adjustment. McGraw-Hill (3rd ed.), Tokyo.

Lee, C. (1988). The relationship between goal setting, self- efficacy, and female field hockey team performance. International Journal of Sport Psychology. 20: 147-161.

Lefcourt, H. M., (1976). Locus of control. Hillsdale. New Jersey: Erlbaum.

Lefcourt, H. M., (1981). Research with the locus of control construct, New Youk. Academic Press, Vol. I.

Lefcourt, H. M., (1982). Locus of control : Current trends in theory & research, Hillsdale. N.J: Erlbama. 2nd ed.

Leftcourt, H. M., Von Baeyer, C.L., Ware, E.E., & Cox, D.J. (1979). The multidimensional- multiattributinol causality scale: The development of a goal specific locus of control scale. Canadian Journal of Behavioral Science, 11 (4), 286-304.

Lenney, E. (1977). Women's self-confidence in achievement settings. Psychological Bulletin, 84, 1-13.

Lichacz, F., & Partington, J. (1996). Collective efficacy and true group performance. International Journal of Sport Psychology, 27, 146-158.

Lidor, R., Morris, T., Bardaxoglou, N., Becker, Jr. (2001). The world sport psychology sourcebook (3rd ed.). Data Reproduction, Inc. Morgantown, USA.

Lindzey, G. (1954). Handbook of social psychology. Cambridge: Addison-Wesley.

Lirgg, C. D., and Feltz,, D.L. (1989). Female self-confidence in sport: Myths, Realities, and enhancement strategies. Journal of physical Education , Recreation, and Dance. 60 (3), 49-54.

Lirgg, C. D.. & Feltz. D. L. (1991). Teacher versus peer models revisited: Effects on motor performance and self-efficacy. Research Quarterly for Exercise and Sport, 62, 217-224.

Lirgg, C.D., & feltz, D.L. (1994). Relationship of individual and collective effective efficacy to team performance. Journal of Sport and Exercise Psychology. 16 (Suppl., S17).

Lirgg, Cathy. D. (1991). Gender Difference in Self-Confidence in Physical Activity. A meta-Analysis of Recent Studies. Journal of Sport and Exercise Psychology 8: 294.

Lodhi, H. (1984). Jadid Olympic. Karachi: International Sports Publications.

Loye, A. C. (1968). A kinemetic analysis of three champions performing the volleyball spike. Dissertation Abstracts International, 39 (4), 2127A.

Lyun, R. W. & Phlean, J.G. and Kicker, V.L. (1969). Brief in internal - external control of reinforcement and participation in group and individual sports. Perceptual and Motor Skills, 29.

Maccoby, E. E., and Jacklin, C.N. (1974). The Psychology of sex differences. Polo Alto, CA: Standford University press.

Maddux, J. E. (1995). Self-efficacy theory: An introduction. In J.E. Maddux (Ed.), Self- efficacy, adaptation, and adjustment: Theory, research, and application (pp.3-33). New York: Plenum Press.

Madigan, M. E. (1962). Psychology: Principles and application. St. Louis.

Mahoney, M. J., & Avener, M. (1997). Psychology of the elite athlete: An exploratory study. Cognitive theory and research, 1, 135-141.

Malete, L. (1998). The effect of a program for athletic coaches education on coaching efficacy. Unpublished master's thesis, Michigan State University, East Lansing.

Mamlin, N., Harris, K. R., Case, L. P. (2001). A Methodological Analysis of Research on Locus of Control and Learning Disabilities: Rethinking a Common Assumption. Journal of Special Education, Winter.

Mann, N. S. (1988). Comparative study of psychological characteristics of athletes in team games and individual events. Unpublished Doctoral Thesis. Chandigarh: Punjab University.

Manning, P. A., (1991). The Relationship of Self- Concept, Sex Role Orientation, and Locus of control Between Female Athletes and Non Athletes with Further Investigation of Birth Order, Commitment, and Influencing Agent Among the Athletes. Dissertation Abstracts International 51, 8: 2648-A.

Martin, J. J. (2002). Psycho-social aspects of elite youth female distance runners. Manuscript submitted for publication.

Martin, J. J., & Gill, D.L. (1991). The relationships among competitive orientation, sport confidence, self-efficacy, anxiety, and performance. Journal of sport and Exercise psychology, 13, 149-159.

Martin, J. J., & Gill, D.L. (1995a). The relationships among competitive orientations and self-efficacy to goal importance, thoughts, and performance in high school distance runners. Journal of Applied Sport Psychology, 7,50-62.

Martin, J. J., & Gill, D.L. (1995b). Competitive orientations, self-efficacy and goal importance in Filipino marathoners. International Journal of Sport Psychology, 26, 348-358.

Martin, J. Jeffery (2002). Training and Performance, Self- Efficacy Affect and Performance in Wheelchair Road Racers. The sport Psychologist, Human Kinetics Publishers, 16, 384-395.

Martin, M. R. (2006). Analysis of Three Exercise Adherence Interventions on Self-Efficacy and Goal Orientation. Research Quarterly and Exercise Sciences (RQES), March, Supplement.

Maslow, A. H. (1968). Towards a psychology of being, 2nd ed., New York : Von Nostrand.

Matthews. G., Deary, J. & Martha, C. (2003). Personality Traits. Cambridge University Press.

Matweyew, L. P., (1981) Grundlagen dessportlichen Training, Sportverlag, Berlin.

Maxiener, J. (1983) Extroversion and neuroticism of Volleyball player. International Journal of Sports Psychology, 14(1), 67-71.

Mc Cullough, M. (1996). The Acquisition of Putting Confidence : A case study, Dissertation Abstract International 57,1: 1345-A.

McAuley, E. (1985). Success and causality in sport: The influence of perception. Journal of Sport Psychology,7,13-22.

McAuley, E., & Gill, D.L., (1983). Reliability and validity of physical self- efficacy in a competitive sport setting. Journal of Sport Psychology, 5, 185-191.

McAuley, E., & Katula, J. (1998). Physical activity interventions in the elderly: Influence on physical health and psychological function. In R. Schultz. M.P. Lawton, & G. Maddux (Eds.)

Annual review of gerontology and geriatrics (Vol. 18,pp 155-154). New York: Springer.

McAuley, E., & Mihalko, S.L. (1998). Measuring exercise related self-efficacy. In J.L. Duda (Ed.), Advances in sport and exercise psychology measurement (pp. 371-390). Morgantown. WV: Fitness Information Technology.

McAuley. E., & Blissmer. G. (2002). Self-efficacy and attributional processes in physical activity. Advances in sport psychology, 2nd ed., pp. 185-206. Champaign. IL: Human Kinetics.

McWhirter N. C. (1984). Guinness book of Olympic records. New York: Bantom Books.

Megargee, E. L. (1966). Research in clinical assessment. New York : Harper & Row.

Meitei, T. et. al. (2004). Social and Emotional Adjustment of athletes on individual body contact sports and team sports of SAI (NERC) Imphal Inmates. Journal of Sports and Sports sciences. Vol. 27(1): 43-47, 2004.

Mellalieu, D. S., Neil, R. and Hanton, S. (2006). Self- Confidence as a mediator of the relationship between Competitive Anxiety intensity and interpretation. Research Quarterly for Exercise and Sport. Vol. 77, No. 2, pp. 263-270.

Mendenhall, W. & Ramey, M. (1973). Statistics for psychology. California: Wordsworth Publishing Co., Inc.

Miller, R. M., (1992). The Relationship between Motivation and Self-Efficacy in Competitive Athletes Participating in

Swimming, Ice-hockey and Basketball. Journal of Sport Behavior 15, 3: 201.

Mills, B. (1996). A multidisciplinary investigation of the relationship of state sports confidence with performance and vedociting swimming start, perceptional and Motor Skill V. 83 Aug. 1996. p.207-10.

Miroy, N. (1986). The history of hockey. England : Lifeline Ltd., Lateham-on-Thames Staines, Midlx.

Mischel, W. (1968). Personality and assessment. New York: John Wiley & Sons.

Mohan, J. & Virdi, P. K. (1985). Standardization of Personality Questionnaire on Punjab University Students. Indian Psychological Review, 28(6), 20-28.

Mohan, J. (1982). developmental study of psychomotor reminiscence performance and vigilance. Report of Research Project. Sponsored by U.G.C. New Delhi, 36-70.

Mohsin, S. M. (1984). Research methods in behavioural sciences. ISBN : Orient Longman Ltd.

Morgan, W. P. & Johnson, R.W. (1978). Psychological characterstics of successful and unsuccessful Oarsmen. International Journal of sports Psychology, 11, 38-49.

Morgan, W. P. (1980). The trait psychology controversy. Research quarterly for Exercise and Sport, 51,50-76.

Moritz, S. E., Feltz, D.L., Fahrbach, K.R., & Mack, D.E. (2000). The relation of self-efficacy measures to sport performance: A

meta-analytic review. Research Quarterly for Exercise and Sport, 71, 280-294.

Moritz, S. E., Hall, C.R., Martin, K.A., & Vadocz, E. (1996). What are confident athletes imaging? An examination of image content. Sport Psychologist, 10, 171-179.

Morris, A. P., Vacero, P. and Calaraka, D.A.(1979). Psychological characteristics of Age group competitive swimmers, perceptual and Motor Skills, 48.

Nangia, S. & Sengar, B. (1989). A comarative study of the adjustment level of university sport persons. Fourth National Conference on sports psychology, 21-22.

Natoumanis, N., L Biddle, S.J.H. (1999). A review of psychological climate in physical acitimity settings with specific reference to motivation. Journal of Sport Sciences. 17. 643-665.

Nigam, A. K. (2001). Analysis of Task and Ego orientation, Perceived purpose of sport, Locus of control and Self-confidence among university level cricket players. Unpublished doctoral thesis, Rani Durgavati Vishwavidyalaya, Department of Physical Education, Jabalpur.

Ntoumanis, N., & Biddle, S. J. H. (1999). A review of psychological climate in physical activity settings with particular reference to motivation. Journal of Sport Sciences, 17, 643-665.

Ogilivie, B. C. (1968). Psychological consistencies of competitors. Journal of American Medical Association, 205.

Okwumabua, T. M. (1986). Psychological and physical contributions to marathon performance. Journal of Sport Behavior, 8, 163-171.

Orbach, I., Singer, R.N., & Murphey M. (1997). Changing attributions with an attribution training technique related to basketball dribbling. The Sport Psychologist, 11, 294-304.

Palsane, M. N. (1970). Students adjustment at the university stage. Journal of Education and Psychology, 27 (4), 321-332.

Panda, B. N. & Biswas, N. B. (1989). Personality adjustment of high and low achieving football: A comparative study. Indian journal of psychometry and Education, 20,97-100.

Panda, Y., Kaul. R. and Mittal, M. (2004). Gender differences in Task and Ego Orientations, Sport Self-Confidence, Trait Anxity, and Goal Setting Styles in elite Indian athletes. Journal of Sports and Sports Sciences, Vol. 27 (2) : 27-39.

Penk, W. (1969). Age changes and correlates. Internal, External Locus of control scales. Psychol. reports. 25, 856.

Porat, Y., Lufi, D. and Tenenbaum, G. (1989). Psychological components contribute to select young female gymnasts. International Journal of sport psychology.20(4), 279-286.

Rafat, (1992). Locus of control and Need Pattern of the Handicapped. A pilot study. Deptt. Of Psychology, A.M.U., Aligarh.

Raj, P. S. (1991). Psychological analysis of motor fitness, self-concept and adjustment. Psychology of sports : The Indian perspective. India : Friends Publications.

Rangari, A. D. (1984). Indian caste system and education. New Delhi: Deep & Deep Publications.

Rani, U. (1974). A study of personality adjustment of athletes and non-athletes. Unpublished Master's Dissertation. Chandigarh; Punjab University.

Rao, N. (1972) A Prognostic study of achievement in relation to academic adjustment. Indian Psychological Abstracts, 1(5).

Rastogi, M. R. (1997). Mannual of self-concept Inventory for college students. Agra: Psychological Research cell.

Rathore, B. S., Bhadana, O.P., and Singh, P. (2001). Investigation of sports special ability in relation to Anxiety, Aggression and Adjustment of Rajasthan State Junior Boxers. Indian Journal of Sports Studies, official journal of Indian Society of Sports Scientists (ISSS), Vol. 6 No.2.

Ravizza, Henry., Kenneth. (2002). A Philosophical Construct: A Framework for Performance Enhancement. International Journal of Sport Psychology. 33: 4-18.

Reid, D. W. & Ziegler, M., (1981). The desired control measure and adjustment among the elderly. In H.M. Lefcourt (ed.). Research with the locus of control construct. Vol.1, Assessment Methods. New York : Academic Press, Inc. 127-159.

Reid, D. W., & Ware, E.E., (1973). Multidimensionality of internal-external control : Implication for past and future research. Canadian Journal of Behavioural science, 5,264-271.

Reid, D. W., & Ware, E.E., (1974). Multidimensionality of internal versus external control : Addition of a third dimension and non-distinction of self versus others. Canadian Journal of Behavioural Sciences. 6. 131-142.

Resnick, J. (1951). A study of some relationships between high school grades and certain aspects of adjustment. Journal of Education Research, 44, 321-340.

Robbins, (2000). Human Resource Management in Sport and Recreation. Chelladurai, P. (ed.) Second edition, Human Kinetics.

Robert, R. R. (1964). The effects of participation in selected intramural sports upon physical fitness, social and emotional adjustment of college fraternity men. Dissertation Abstracts International, 24, 275A.

Robert, S. J., & Stephaniea, P., (1996). Life adjustment correlates of physical self-concepts. Medicine & Science in sports & Exercise. 28(5): 619-625.

Robert, T., (1993). Self-Confidence and Baseball Performance: A Casual Examination of Self-Efficacy Theory. Dissertation Abstract International 54, 5: 123-A.

Roma, P. & Tiwari, G. (1984). State Trait Anxiety Inventory. Agra: National Psychological Corporation.

Rosenberg, M., (1965). Society and the adolescent self-image. Princeton: Princeton University Press.

Rotter, J. B. (1954). Social learning and clinical psychology. Englewood cliffs, N.J. : Prentice Hall.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological monograph, 80.

Rotter, J. B. (1975). Some Problems and its conceptions related to the construct of internal Versus external control of reinforcement. Journals of consulling and clinical psychology, 43, 56-67.

Rudisill, M. E. (1989). Influence of perceived competence and causal dimension orientation on expectation, persistence, and performance during perceive failure. Research Quarterly for Exercise and Sport, 60, 166-175.

Sarafino, (2002). Personality Traits, Sec. Edition, Cambridge University press, , 2003.

Saraswat, R. K. (1984) Physical, social, temperamental educational, moral and intellectual aspects of self-concept. Indian Educational Review.

Scarr, S. & Kidd, K. (1983). Developmental behaviour genetics. In M.M. Heith & J.J. Compos (ed). Mussen handbook of child psychology. New York: Wiley.

Schneider, A. A. (1965). Personality dynamics and mental health. New York; Alfred, A. Knoft.

Scymon, E. W. (1956). Comparative study of certain behavioural characterstics of participants and non-participants in little large basketball. Research Quarterly, 27, 338-346.

Sekhon, R. S. (2002). Comparative analysis of Skills, Physical Fitness, Psychological and Physiological variables among hockey

players of different levels. Unpublished doctoral thesis, Jaipur, University of Rajasthan.

Selltiz, C.; Marie, J.; Deutch, M. & Cook, S. (1964). Research methods in social relations. New York: Holt, Rinehart & Winston.

Shaffer, L. F. & Shoben, E.J. (1956). The psychology of adjustment (2nd ed.) Boston : Houghton Miffin.

Sharma, D. V. (1984). Socio-Psychological differentials of non-sportsmen and university representing sportsmen. Unpublished Doctroal Thesis. Chandigarh; Punjab University.

Sharma, J. P. et al. (1974). Study of low achieving and high achieving schools. Journal of Rajasthan Education Board, 10(3), 42-51.

Sharma, K. R. (1993). Relationship of self-concept, adjustment, creative thinking and a tendency to dominate or submit of performance of team players. Unpublished Doctoral Thesis, Kurushetra : Kurushetra University.

Sherri, L. J. (2003). Research methods and statistics- A critical thinking approach. Thomson/Wadsworth, United States of America.

Shivetts, M., Joyner, A. B., Czech, D. R., and Zwald, D. (2007). The effects of an individual goal-setting intervention on goal orientation, self-confidence, and driving accuracy in average golfer: A quantitative design. International Journal of fitness. 3, Issue 1, pp.1-13.

Shontz, F. C. (1965). Research methods in personality. New York : Appleton-Century-Crofts.

Singer, R. N. (1972). Coaching athletics and Psychology. New York : Happer and Row.

Singh, D. (1991). Self-image, body image and movement image of Punjabi University male athletes in relation to their participation. Unpublished Doctoral Thesis, Patiala. Punjabi University.

Singh, G. (1972). How to play hockey. New Delhi; Continental Press.

Singh, H. (1984). Sports Training General Theory and Methods, NIS Publication Section, Patiala.

Sinha, A. K. P. & Sing, R.P. (1980). Manual for Adjustment Inventory for college students. Agra : National Psychological Corporation.

Slater, E. & Cowie, V. (1971). Genetics of mental disorders. London : Oxford University Press.

Slobodanka, G. P., Snezana, J., & Dragan, J., (2006). General self-esteem and locus of control of young sportsmen. Institute for Educational Research, Belgrade. Зборник Института за педагошка истраживања Година 38 . Број 2 . Децембар . 385-400 Оригинални научни чланак

Sollo R. R., (1980). The Relationship Between Physical Activity and Locus of Control for Disable College Students M .S. in Physical Education. Completed Research in Health, Physical Education & Recreation 21: 165.

Srivatsan, S. (1983). Physical Education for future generation. A paper presented at the All India Seminar sponsored by the U.G.C. held at Kalyani University, 21,22 Dec. 1983, p. 13.

Stewart, M. J., and Corbin, C.B. (1988). Feedback dependence among low confidence preadolescent boys and girls. Research Quarterly for exercise and sport. 59, 160-164.

Stollak, G. E.; Guerncy, B.J. (Jr.) & Rothberg, M. (1966). Psychotherapy research : Chicago: Rand McNally.

Sullivan, H. S. (1947). Conception of modern psychiatry. Washington : William Aderson White Psychiatry Foundation.

Symonds, P. M. (1946). The dynamics of human adjustment. New York : Appleton-century-crofts, Inc.

Tarshis, B. (1977). Tennis and the mind. New York: Tennis Magazine.

Taylor, S. E. & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. Psychological Bulletin, 103, 193–210.

Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. American Psychologist, 38, 1161–1173.

Taylor, S. E., & Brown, J.D. (1988). Illusion and well-being : A social psychological perspective on mental health. Psychological bulletin, 103, 193-210.

Thomas, J. R. and Nelson, J. K. (2001). Research methods in physical activity. Human Kinetics.

Thompson, S. C. & Spacapan, S. (1991). Perceptions of control in vulnerable populations. Journal of Social Issues, 47, 1–21.

Tiger, J., Khan, H. A. and Saini, J. S. (1986). A survey of psychological demands of high level performance in athletic event as

perceived by the experienced coaches and athletes (SNIPES Journal 9 : 3, July), p. 29.

Todd, M., & Brown, C. (2003). Characteristics associated with superstitious behavior in track and field athletes: Are there NCAA divisional level differences? Journal of Sport Behavior, 26, 168-187.

Treasure, D., Monson, J., & Lox, C.L. (1996). Relationship between self-efficacy, wrestling performance, and affect prior to competition. The sport psychologist, 10, 73-81.

Underwood, B. J. (1957). Psychological research. New York: Appleton-century-crofts.

VanYperen, N. W. (1995). Interpersonal stress, performance level and parental support. A longitudinal study among highly skilled young soccer player. Special Issue : European Sport Psychology. Sport Psychologists, 9(2), 225-241.

Vealey, R. (1986). Conceptualization of sport-confidence and competitive orientation: Preliminary investigation and instrument development. Journal of Sport Psychology. 8. 221-246.

Vealey, R. (2001). Understanding and enhancing self-confidence in athletes, R. Singer. H. Hausenblas, C. Janelle (ed.). Handbook of sport psychology (2nd ed., pp. 550-565). New York: Wiley.

Vealey, R. (2001). Understanding and enhancing self-confidence in athletes. In R. Singer. H. Hausenblas, & C. Janelle (Eds.). Handbook of sport psychology (2nd ed., pp. 550-565). New York: Wiley.

Vealey, R. S. (1986). Conceptualization of sport-confidence and competitive orientation: Preliminary investigation and instrument development. Journal of Sport Psychology, 8, 221-246.

Vealey, R. S., (1995). The conceptualization and Measurement of Sports-Confidence. Dissertation Abstract International 45,11: 3392.

Vealey, R., & Knight, B. (2002). Multidimensional sport-confidence: A conceptual and psychometric extension. Unpublished menscript, Miami University, Oxford, OH.

Weinberg, R. S., & Gould, D. (1999). Foundation of sport and exercise psychology (2nd ed.) Champaign, IL: human Kinetics.

Weinberg, R. S., & Gould, D. (ED.). (2003). Foundations of Sport & Exercise Psychology. United States: Edwards Brothers.

Weinberg, R. S., & Jackson, A. (1990). Building self-efficacy in tennis players: A coach's perspective. Journal of Applied Sport Psychology, 2(2), 164-174.

Weinberg, R. S., Gould, D., & Jackson, A. (1979). Expectations and performance: An empirical test of Bandura's self-efficacy theory. Journal of Sport Psychology, 1, 320-331.

Weinberg, R. S., Yukelson, D., & Jackson, A. (1980). Effect of public versus private efficacy expectations on competitive performance. Journal of Sport Psychology. 2, 340-349.

Weinberg, Robert., (1992). Strategies for Building Self-Efficacy in Tennis Players: A Comparative Analysis of Australian and American Coaches. The Sport Psychologist 6: 3.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. Psychological Review: 92, 548-573.

Weiss, M. R., Barber, H., Sisley, B.L., & Ebbeck, V. (1991). Developing competence and confidence in novice female coaches: II. Perceptions of ability and affective experiences following a season- long coaching. Journal of Sport & Exercise Psychology, 13(4), 336-363.

White, R. W. (1956). The abnormal personality (2nd ed.). New York : The Ronald Press Co.

Williams, J. (2001). Applied sport psychology (4th ed). Mountain View, CA: Mayfield.

Williams, J. M., & Krane, V. (1998). Psychological characteristics of peak performance, J. M. Williams (ed.). Applied sport psychology: Personal growth to peak performance (3rd ed., pp. 158-170). Mountainview, CA: Mayfield.

Wiss, M. R., Gill, Diane. L (2005). What Goes Around Comes Around: Re-emerging Themes in Sport and Exercise Psychology. Research Quarterly for Exercise and Sport. Vol. 76, Supplement to no. 2, pp. S71-S87.

Wood R. E., Bandura A. and Baily T., (1990). Mechanism governing organizational performance in complex decision making environments. Organizational Behaviour and Human Decision Processes. 46, 181-201.

Woodman, T., and Hardy., L. (2003). The relative impact of cognitive anxiety and self-confidence upon sport performance: a meta-analysis. Journal of Sports Sciences, 2003, 21, 443–457.

Yadav, R. K. (1989). Volleyball Playing Ability Rating scale. Assessment of Psychomotor Ability of Volleyball players of Different levels of achievements Ph. D. Thesis, Jiwaji University. Gwalior.

Yadav, S. (1992). Selected personality variables of adjustment and socio-economic status as related to performance in mass and class sports. Unpublished Doctoral Thesis, Chandigarh : Punjab University.

Appendices

Appendix i

PERSONAL DATA

Name (Block Letters).....

Class.....College.....

University.....Age.....

Participation in game (Hockey): One Year ( )

Two Years ( )

Three years and more ( )

Level of Participation

Senior National ( )

Junior National ( )

Combined Universities ( )

Inter-Zonal Intervarsity ( )

Zonal-Intervarsity ( )

U.P. Intervarsity ( )

Length of Training:..... Years

Highest Achievement: Tournament Position

(Mention Winner/Runners-up).....

Parental Education:

High School ( )

Intermediate ( )

Graduate ( )

Post Graduate ( )

Father's Profession :.....

Father's Income (Per month).....

Father's Sports Background:.....

Do parents encourage participation in hockey: Yes ( ) , No ( )

Order of birth: I ( ), II ( ), III ( ), IV ( ), V ( )

Number of dependents.....

Appendix ii

P. R. P.

Components	Points	Score of the player
Skillfulness	1 2 3 4 5 6 7 8 9 10	
Tactical Ability	1 2 3 4 5 6 7 8 9 10	
Positional Play	1 2 3 4 5 6 7 8 9 10	
Team Spirit	1 2 3 4 5 6 7 8 9 10	
Decision Making	1 2 3 4 5 6 7 8 9 10	
Perseverance	1 2 3 4 5 6 7 8 9 10	
Exploiting Opponent's Weaknesses	1 2 3 4 5 6 7 8 9 10	
Anticipation	1 2 3 4 5 6 7 8 9 10	
General behaviours	1 2 3 4 5 6 7 8 9 10	
Understanding with Team-mates	1 2 3 4 5 6 7 8 9 10	

Total Points= 100 **Score =**

Instructions to Experts:

1. You are requested to evaluate each player with the help of 10-point rating scale on the performance components listed above.
2. Please encircle the number given against each component regarding the player's assessment of performance.
3. A rating of 1 will be assigned if the player has least capability for the component. A rating of 10 will be given if the player has highest capacity. In this manner evaluate each player on each component ranging from 1-10.

Appendix iii

L. C. I.

INSTRUCTIONS- Given forth are twenty statements which you should read one by one and respond to each statement by any one cell of the five responses. Do not spend too much time brooding over each item. Your response should be spontaneous as well as accurate because these statements reflect your own feeling about the factors that control your sports career.

1-	Whether or not I am selected to be a member of National/ State / University team, depends upon my ability to play the game.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
2-	To a great extent, my sports career is controlled by accidental happenings.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
3-	I feel that my achievements in sports are mostly determined by powerful high-ups.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
4-	Other may have better skill or technique but I shall show better results as a result of prolonged practice.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
5-	I can show my worth as a player if only I am included in the team and this is possible only through money.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
6-	Whether or not I get some position in sport field, depends upon how good a player I am.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

7-	If luck does not favour me, my efforts would always fail as a player.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
8-	I can not be a distinguished player unless some powerful politicians or V. I. P. s are at my back.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
9-	If I receive proper caching, I can excel other players very easily.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
10-	My excellence in sports is due to my inborn capabilities	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
11-	How many player cooperative with me in team, depends upon how nice a player I am.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
12-	If I can spend money, I can win over the selectors, umpire, referees and even can get applause from the audience.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
13-	Whether or not I succeed in sports career, is only a matter of stars.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
14-	Getting what I want in sports field requires pleasing people who matter.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
15-	For lack of modern equipment, I can not beat even the inferior players who are fully equipped.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
16-	Success sports career largely depends upon how much of hard work I shall put in.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
17-	Sportsmanship in me will help me beat any other player playing on my position.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

18-	If I get to come in contact in international sportsman, I shall surely improve my game.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
19-	It is my superior game and nothing else which inspire me for greater effort.	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
20-	I never forget that to rise higher in sports one has to follow "practice makes a player perfect".	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

Appendix iv

A. I.

1. (a) Have you ever strongly desired to go home?
2. (b) Do you often day dream ?
3. (c) Do you feel that many of your friends have better educational background than you in many subjects ?
4. (b) It is difficult for you to sleep sometimes even when there is no noise disturbing you ?
5. (c) Do you avoid meeting your friends in a public place?
6. (a) Do you feel that true love and affection is lacking in your home?
7. (b) Do you feel quite tired by the end of the day?
8. (d) Do you feel difficulty sometimes?
9. (c) Are you often worried because of your poor memory?
10. (a) Has your home become full of problems for you due to lack of money ?
11. (d) Do you get discouraged easily?
12. (c) Are you of a shy nature?
13. (d) Do you get excited in debates?
14. (e) Are you more interested in the cinema actors than the learned people?
15. (a) Have your parents interfered or objected to the company of some of your friends with whom you move around ?
16. (b) Have you ever had a major operation?
17. (a) Does your father or mother get irritated soon?
18. (c) Do you ask the speaker some questions in a meeting?
19. (d) Do you believe that you are nervous?
20. (a) Do you often quarrel with your brothers and sisters?
21. (b) Do you often feel dizzy?
22. (d) Does it displease you when something small is said against you?
23. (e) Do you forget easily what you have read?
24. (b) Do your eyes get exerted when you see?

25. (c) Have you ever organized any social function by yourself ?
26. (d) Are you unable to sleep because of some disturbed thoughts in your mind ?
27. (a) Do you feel that your parents are more strict with you than they should be?
28. (b) Do you feel tired when you get up in the morning?
29. (d) Do you worry over an insulting experience for a long time?
30. (c) Do you worry over what your future job will be?
31. (d) Are you afraid of telling your problems to your teacher?
32. (c) Is it difficult for you to speak in public?
33. (d) Do you cry easily over simple things?
34. (a) Do you get contrary ideas of love and hate towards your family members?
35. (b) Do you often have throat troubles?
36. (b) Do you often complain about sickening feeling or vomiting feeling?
37. (c) Do you think that your teachers take side of the other students?
38. (a) Has any one of your respected family members made you unhappy by passing comments on your appearance ?
39. (c) Do you experience loneliness even when you are among the people?
40. (d) Do you feel gloomy when you get less mark in the examination?
41. (c) Do you feel that your friends get better results in the examination because they have better facilities ?
42. (b) Were you sick for a long time in your childhood?
43. (d) Do you hate the kind of happiness that makes others happy?
44. (d) Are you afraid of appearing for examinations?
45. (a) Are you happy and satisfied with the present atmosphere at home ?
46 (b) Do you sometimes get strong headache?

47. (d) Do you fear that you might jump when you climb to a high place ?
48. (c) Is it difficult for you to grasp the subject -matter taught in the class?
49. (a) Do you get very little help from home?
50. (h) Are yon often absent from college due to sickness?
51. (c) Have you ever been unable to answer a question in class because of being afraid to speak ?
52. (d) Do you get angry easily?
53. (c) Is it difficult for you to get your mind into studies?
54. (a) Do you feel inferior that your friends' home atmosphere is happier than yours?
55. (c) Do you cross the road to avoid meeting a certain individual?
56. (d) Are yon unhappy because of inferiority feeling?
57. (c) Is it difficult for you to write notes in the class?
58. (a) Do you understand that your parents are of old ideas?
59. (h) Are you sometimes affected with skin disease?
60. (d) Do you worry about expected problems to be come?
61. (c) Do you know how to get ready for examination?
62. (b) Are you always worried because of physical morbidity?
63. (c) Do you make friends easily?
64. (d) Do you feel perplexed that people on the road are looking at you only ?
65. (e) Do you feel sleepy in class even after you have had enough of sleep during the night ?
66. (a) Do you feel that you are a burden to your parents?
67. (b) Does your health always trouble you?
68. (d) Do you get much disturbed because of criticism?
69. (c) Do you think of leaving the college sometimes?
70. (a) Are you satisfied with the behaviour of your brothers and sisters?
71. (b) Does the idea of being infected with a contagious disease often terrify (Frighten) you?
72. (c) Do you get confounded (or battled) very much when a teacher comes to your home suddenly ?

73. (c) Do you have any doubts on the value of things you read ?
74. (c) Do you have difficulty starting up a conversation with a stranger?
75. (d) Do you get bewildered easily?
76. (c) Do you like to take part in celebrating festivals or other entertainment programmes ?
77. (c) Do you hesitate in coming from your room into a room where there are some people sitting and talking among themselves ?
78. (d) Does your emotional (or sentimental) being rise or fall without any existing facts ?
79. (e) Is it difficult for you to express your ideas in writing?
80. (c) Do you often experience loneliness?
81. (d) Do you get frightened in the darkness when you are alone?
82. (e) Do you think that you get encouragement from your teachers?
83. (c) Are you careful in speaking something that hurts others?
84. (d) Does praise please you more than the work knowledge?
85. (c) Do you disregard others sentiments to achieve any important goal (or object)?
86. (c) Do you think that your teachers have no interest in you?
87. (d) Do people take advantage of you sometimes?
88. (c) Does it worry you that your teachers think of you less than you really are.
89. (c) Do you conic foreword and bring life into a dead party or function?
90. (d) Does your mind sometimes wonder or get confused so much that you forget the order of (he work that you are doing ?
91. (c) Do you like to work in groups?
92. (d) Do you get sometimes pleasing and sad thoughts one after (he other without any reason ?
93. (e) Do you think that you have chosen subjects that arc most appropriate fo you?
94. (e) Is it difficult for you to keep up with the progress in class ?
95. (d) Do you think that after you have finished studying you will

not get the kind of job you like ?

96. (d) Do you sometimes feel that you should not have been born?
97. (c) Do you have many friends in college in whom you trust?
98. (d) Do you sometimes do some things unknowingly?
99 (c) Do you quarrel with your classmates over little things?
100. (a) Do you have to be often out to have peace at home?
101. (d) Doesn't it grieve you when a teacher praises any student?
102. (d) Are you often lost so much in thinking that you do not know what is happening around you ?

Appendix-V

S.C.I.

INSTRUCTIONS

Given forth are hundred Statements related to your personality make-up, which you should read carefully one by one and respond to each statement by making a Tick at either True or False, whichever is exactly applicable in your case. you have to answer all the queries within 30 minutes time.

1	It is rather difficult for me to make new friends.	True /False
2	I can be natural while at a party.	True /False
3	I am never at conflict with myself.	True /False
4	I enjoy mixing with people.	True /False
5	In social conversation I am usually a listener than a talker.	True /False
6	I can usually find a ready answer for remarks made to me.	True /False
7	When things go wrong I pity or blame myself.	True /False
8	I have a horror of failing in anything I want to accomplish.	True /False
9	I often cross the street to avoid meeting some people known to me.	True /False
10	I find it very difficult to speak in public.	True /False
11	I feel insecure within myself.	True /False
12	I find it hard to do my best when people are watching.	True /False
13	I can recover easily and quickly from social blunders.	True /False

14	I do not care much for what others think of me.	True /False
15	I have difficulty in talking to most people.	True /False
16	I stay in the background in social gatherings.	True /False
17	I feel embarrassed to enter into assembly when all are a1ready seated.	True /False
18	I have difficulty in saying the right thing at the right time.	True /False
19.	I tend to worry over possible troubles.	True /False
20	I frequently feel thwarted because I am unable to do so I desire.	True /False
21	I think of myself as a successful person.	True /False
22	I am much affected by the praise or blame of many people.	True /False
23	My feelings are rather easily hurt.	True /False
24	I can face a difficult situation without worry.	True /False
25	I am hesitant about forming decisions.	True /False
26	I feel bored much of the time.	True /False
27	I can tackle new situations with a reasonable degree of assurance.	True /False
28	I am often unable to decide until it is too late for action.	True /False
29	I tend to be quick- and certain in my actions.	True /False
30	1 always feel that I can achieve the things I wish.	True /False
31	I feel no obstacle can stop me from achieving my final goal.	True /False
32	I am generally confident of my own ability.	True /False
33	I often feel that in life's competition I am	True /False

	generally the loser.	
34	I frequently feel unworthy.	True /False
35	I worry over humiliating situations more than most persons.	True /False
36	I feel physically inferior to my friends.	True /False
37	I find it hard to continue work when I do not get enough encouragement.	True /False
38	I am bothered by inferiority feelings.	True /False
39	My people believe that I am as much a success as I could be.	True /False
40	I can play my best in a game or contest against an opponent who is much superior to me.	True /False
41	I am always ready to decide what my next step should be	True /False
42	I can adjust readily to new situations.	True /False
43	I often feel rather awkward.	True /False
44	I am afraid that other people will dislike me.	True /False
45	My friends have made better life adjustments than -myself.	True /False
46	I am- happy go luckey person.	True /False
47	I can relax myself easily.	True /False
48	I blush very often.	True /False
49	When upset emotional take much time to recover.	True /False
50	I day dream very often.	True /False
51	I am readily moved to tears.	True /False

52	When a critical situation is past, I often think what I should have done but didn't.	True /False
53	I often feel that my movements are clumsy.	True /False
54	I don't have initiative.	True /False
55	I usually work things out for myself rather than get someone to show me.	True /False
56	I am a dominant person.	True /False
57	I am usually discouraged when the opinions of others differ from, my own.	True /False
58	I am often confused,,	True /False
59	People frequently blame me for things unjustly.	True /False
60	I feel that my parents are disappointed in me.	True /False
61	I envy the happiness that others seem to enjoy.	True /False
62	Criticism disturbs me greatly.	True /False
63	I get discouraged easily.	True /False
64	I can get a job any day.	True /False
65	I seem to make friends about as quickly as others do.	True /False
66	I shrink from facing a crisis or difficulty,	True /False
67	If given a chance I could do something that would be of great benefit to the world.	True /False
68	If given a chance I would make a good leader of people.	True /False
69	I have several times given up doing a thing because I thought too little of my ability.	True /False
70	No one seems to understand me.	True /False
71	I need someone to push me through things.	True /False